THE

ECONOMIC JOURNAL

VOLUME XXXIII

THE

ECONOMIC JOURNAL

THE JOURNAL OF

The Royal Economic Society

EDITED BY

F. Y. EDGEWORTH and J. M. KEYNES

VOLUME XXXIII

REPRINTED 1967 FOR
Wm. DAWSON & SONS LTD., LONDON
WITH THE PERMISSION OF
THE ROYAL ECONOMIC SOCIETY

Originally printed in Great Britain by
Richard Clay & Sons Ltd., London and Bungay, Suffolk
Reprinted in Belgium by Jos. Adam, Brussels

THE ROYAL ECONOMIC SOCIETY.

Correspondents:

Prof. H. STANLEY JEVONS for INDIA (University of Allahabad).

Mr. A. DUCKWORTH for NEW SOUTH WALES (Australian Mutual Provident Society, Sydney).

Prof. JAMES HIGHT ,, NEW ZEALAND (Canterbury College).

Prof. R. A. LEHFELDT ,, SOUTH AFRICA (School of Mines and Technology, Johannesburg).

Prof. SCHUMPETER ,, AUSTRIA (University of Vienna).

Prof. E. MAHAIM ,, BELGIUM (University of Liége).

Prof. H. WESTERGAARD ,, DENMARK (University of Copenhagen).

Prof. CHARLES GIDE for FRANCE (University of Paris).

Prof. A. ANDRÉADÈS ,, GREECE (University of Athens).

Prof. A. LORIA ,, ITALY (University of Turin).

Mr. JIUCHI SOYEDA ,, JAPAN (Industrial Bank of Japan, Tokyo).

Prof. F. BERNIS ,, SPAIN (University of Salamanca).

Prof. G. CASSELL ,, SWEDEN (University of Stockholm).

Prof. E. R. A. SELIGMAN for UNITED STATES (Columbia University, New York).

THE ROYAL ECONOMIC SOCIETY (incorporated by Royal Charter, 1902) was founded, under the name of the BRITISH ECONOMIC ASSOCIATION, at a meeting held at University College, London, on November 20th, 1890, the Right Hon. G. J. Goschen, M.P. (the late Viscount Goschen), in the Chair.

The Society has for its object the general advancement of economic knowledge.

The Journal of the Society, published quarterly by Messrs. Macmillan and Co., Ltd., London, and sent post free to Fellows, is intended to represent the various shades of economic opinion, and to be the organ, not of one school of economists, but of all. The Journal numbers among its contributors the leading economists of all countries. Fellows are entitled, in addition to the Journal, to copies of sundry other publications issued by the Society from time to time.

Apart from the Annual Meeting a Congress of the Society has been periodically convened for the discussion of social and economic questions, and opportunity has thus been afforded for the reunion of Fellows.

By arrangement with the London School of Economics, Fellows of the Royal Economic Society may obtain from the Secretary a card entitling them to the use of the valuable library of that institution.

Libraries of a public or semi-public character are admitted to subscribing membership on special terms, which can be obtained on application to the Secretary.

ROYAL ECONOMIC SOCIETY

THE ECONOMIC JOURNAL

MARCH, 1923

MOTIVES AND STANDARDS IN INDUSTRY.[1]

THE University has placed on me the burden of the honour of succeeding famous men in the Chair of Political Economy. Their names show that many different fields and methods of economic study have been represented at Oxford. The first holder of this Chair, Nassau Senior, is generally assumed to have aimed in economics at the abstract and deductive method which is characteristic of the pure sciences. And in fact his contribution to the *Encyclopædia Metropolitana* is classed among the "pure sciences." But his four elementary propositions are inductive statements, and his reasonings are not formal inferences so much as expanded proofs of them. The main contention of Senior was rather the purely positive and provisional nature of economic results. The facts concerning wealth are left for the wider study of legislation to compound with other facts in the making of human welfare. As regards public policy, the economist must practise his own "abstinence," for policy is too intricate to be determined on economic grounds alone. If Senior somewhat straitened his own study, that was not the self-assertiveness, but rather the self-denial, of a specialist. To Thorold Rogers we owe, in the first place, the challenge of assumptions which are not guarded by historical and inductive study, so as to show how far they are true of any human society, and how far only of a society that has grown up in a particular way; and, in the second place, the emphasis on the right use, as distinct from the plentiful growth, of national wealth. His massive and fascinating historical studies are among the permanent possessions of economic literature; and the historical school of economists is now a strong foundation. The title of his book on *Practical Political Economy* indicates the development that took place here under Bonamy Price. He was a popular expositor; but though it was his

[1] An Inaugural Lecture, Oxford, 1922.

expressed purpose to substitute for scientific methods the "intelligent observation" of ordinary things, he may fairly be said, in a classical idiom, to have sometimes escaped his own notice in being scientific.

Of the work of my immediate predecessor, it is becoming to speak with the respect due to an acknowledged master; and with the gratification of knowing that the debt to Professor Edgeworth of economic analysis is still to be increased. There is science so far as there is measurement. Human motives, when they aim at making some result the greatest possible, or when they withdraw from action because some other result is becoming indifferent, though they act freely, act under law. And while no one more than Professor Edgeworth has set forth these tendencies with trained and scrupulous precision, the setting is rich with widely sought classical allusion and literary grace.

All these aspects of economic study—the deductive, the historical and the practical—are necessary to the proper treatment of the problems of human wealth and welfare. It is essential to keep close relations with the human sciences of ethics, psychology and politics. The most widely quoted of the classics—Smith and Mill—were not solely economists. The relation to present-day facts is understated by Bonamy Price when he calls it intelligent observation. There can be intelligent observation of a Treasury issuing currency notes, or a broker arranging a straddle on the cotton futures market. Some economic study finds its motive in the fascinating intricacies of such proceedings. But much more is motived by critical observation of economic results; such, for example, as is obtained by living in an East End Settlement, or from reading Dickens, or from living through a succession of great strikes. I would express my own obligation to teachers not only such as Alfred Marshall and James Ward, under whom I sat; but such as Toynbee Hall, and the city of Manchester, the heart of the industrial North.

The responsibilities of this Chair are increased by special causes at the present time. The economic aspects of public affairs are always becoming more important, and this is in some ways a grave result, because it means that in politics rival interests are taking the place of rival views of patriotism. But it is a necessary result, not to be evaded by banishing Political Economy to Saturn, since it is obsolete to suppose that a thing can only act where it is. We may yet see, if not an economic Parliament, at any rate something of the nature of a standing economic Commission. The academic study of economics, in relation to the complex

conditions under which economic issues arise in public affairs, may be compared to the training schools of the Army; a degree of precision and discipline is enforced, which cannot be fully acted on in the line, but which makes for order and regularity. But in the human sciences especially, the thing studied is changing by forces that are only partly economic, and even economic evolution cannot be far foreseen. The economists of to-day are therefore just as likely to differ from those of fifty years ago, and from each other, and from those of fifty years hence, as the physicists, biologists, or theologians. The service of science is to collect the clearest truth of its time, and to make the nearest estimate of tendencies. The whole economic question is so vast as to call for some such division of work as now exists in the teaching of chemistry or engineering; and this development is now taking place in England. This brings me to mention a special responsibility of this Chair at the present time. Finance, and the structure of industry, are the two large questions which the war has thrust upon us. The former, having lost its automatic gearing, has disclosed its relation to the social problem of employment. For the complete study of both, the University has laid a foundation in the new School of Economics, Philosophy and Politics. To that, men and women will come, not only from this country but, as they come to Oxford, from everywhere, many of them already well equipped. At the best, I believe the school requires definite provision for the teaching, with some specialism, of industry and of mainly public finance. Whether this provision is made by Colleges or by the University, we can hardly administer without it the economic side of a school of any size.

I have chosen to devote this lecture to the consideration of some questions of motives and standards in industry; partly because it is a pressing question of general interest, but also because in some degree it affects the approach to the study of economics itself. It is usual to enter on the study of any science in the spirit of hope; but a well-known remark of Carlyle placed political economy apart. Just as relativity has been said to be due to Einstein, so teachers of economics seem often to be held responsible for some aspects of the facts which they teach. The root of this is the special motives which are supposed to influence those who engage in industry, especially as leaders, and which cast a sinister spell over the minds of those who go any length with the impartial study of industry. To some extent, in fact, the current coin of language has been debased, the

critique of industry having prejudiced the use of even such ordinary terms as profit, capitalism, surplus, supply and demand. The work of a teacher is made more difficult because it is necessary not to depart far from ordinary language, though in that language economic terms are being, often designedly, clothed with threat and suggestion. There is a critique of industry, based on its motives and standards; and it becomes explicit in the now frequently expressed idea that industry should be conducted like a profession.

Of course this reflects, as it is meant to reflect, on the prestige and dignity of modern industry. The general level of social morality, it is implied, is lower than average in that great occupation. Yet it is the greatest field of life and character and work. It ought to rank among the highest and most honourable of human activities. It requires faculties of constructive ability, resource, leadership, and knowledge of men, to a degree not exceeded even in politics. It does the hardest work of the nation, under the greatest nervous strain. Its leaders have in recent years broken the ring of professional politics, and assumed responsibilities which no one else could have discharged. Yet there is a reserve, an idea of exception, even in the modern acceptance of the business genius. It is not the same in every country. To some extent it appears to depend on the degree of contact between industry and the Universities. That contact is much closer, for example, in the United States than in this country; it is there much more usual for the business man to be a college graduate. Critical ideas about industry are likely to develop in Universities mainly devoted to training for the professions. And so industry " ought to become a profession "; to that level must be raised the standards and motives of the world which trades, competes, bargains, and, above all, advertises.

Tried by certain tests, the standards of industry are believed to be getting worse. Of course, this is a difficult result to accept of any human organisation over a long time. Human philosophy assumes in general an evolution from less to more perfect standards, from a less to a greater personal freedom. Yet over a long period, since the days of the old gilds, industrial standards are held to have been lowered; and distinguished public men have described the result, in certain of its bearings, as an outrage and an insult to personality. It has been said that you cannot accuse a nation; here is the accusation of a whole epoch of evolution. Even at some cost in purely economic efficiency, critics of the existing order often seem prepared to repurchase the industrial ideals

that are attributed to earlier and simpler times. But the "merrie England" fallacy is a form of the fallacy known in economics as "labour value," but capable of being generalised as the "far-fetched" fallacy; hence a quotation from an English book is answered by one from a German, and crushed by one from a Russian or a Japanese, and the quaint language of an old writer seems truer for its quaintness. And so with the industrial ideals of long ago. Even then, however, people had to be prevented by regulation from *engrossing, regrating and forestalling*.

Of course, it is always possible to say that the whole charge is too big to be probable, and that the strains and tensions of industrial life are simply not understood in the professions, or in social controversy. It all depends on the breadth and authority of the criticism. No one wishes to be supposed to make positive teaching the advocate of limited motives. Now the criticism is both broad and authoritative, and much of it has come from Oxford. The authority for the view that industry is based on principles that are an insult to personality includes distinguished leaders of the Church; and it was in this room only a few weeks ago that an eminent American writer and teacher [1] repeated the criticism that industry must work up to professional standards of motive and conduct.

In the social controversy on this question, and on the industrial changes which are thought necessary, there is a good deal of impatience with the attitude ascribed to professional economic teaching, especially if it is in the line of what is called orthodoxy. This cannot be helped; it is in the nature of the case. Political economy must keep distinct from political economics. The very charge that is made against the classical economists before Mill is that they allowed their teaching to be captured by the ideas of competition, freedom and efficiency, which had gained popular impetus through the industrial revolution; that they were not steady, but too quick to conform, and make out a case. The industrial position has now been changed by the growth of combination and of public control. Economists would do the very thing with which their predecessors are charged, if they now allowed themselves to be rushed into an apology for what is the loudest voice in social controversy. That is as great a danger as the danger of being driven into conservatism by excessive appreciation of the marvellous intricacy and organisation of great industries, a danger which I admit is considerable.

The problem I have to take up involves the three ideas of

[1] Dr. Hadley, of Yale University.

motive, function and status in industry. They are involved with each other. First, as regards motive. The question turns mainly on the relation of self-interest to public service, considered as motives.

The term self-interest, in economic controversy, tends to be used like a poison, and it is as well to say at once two things about it. First, that of course it is the immediate motive in industry as in the professions; it is the assumption on which correct statements of cause and effect are most likely to obtain. Second, that it is not an individual motive. The whole meaning of self-interest is to be gathered from such a study as is given by William James in his *Psychology*; this will show how far astray it is possible to go in economics by neglecting psychology. The pursuit of self-interest is that of a whole system of interests, having a social radius, but maintained by the purposes and activities of an individual. Fame or reputation may be motives more narrowly selfish than the pursuit of wealth.

There is so much discussion of this, and it is so general and theoretical, that it might now be fruitful if a positive study were made—in this way. Take *at random* a score of great businesses, obtain their reports over a period of years, and classify the subject matter of these reports. How much of them refers to profit and dividend? how much to labour interests? to what extent is the national service of the enterprise referred to? Make an allowance for publicity, and there is some basis for a positive judgment on industrial motives. For example, of a number of reports taken at random one speaks first of the ancient standing of the business, going back for 130 years; then of the ideals of Lancashire as a centre of industry; of the vision and imagination which its development needs; of the world-wide reputation of their trade-marks as a guarantee of quality; of the profits of the year. Is this typical, or too favourable a picture of industrial motives? In another, the main question is the re-establishment in England of a trade which had been lost to the Continent. This, the report says, is well on the way to achievement, and the business, it is claimed, has deserved well of the nation. The quality of their goods is claimed to be better than the Continent ever supplied. The report concludes: "We are content to paraphrase Dr. Samuel Johnson's statement and to say—We have here no mere collection of factories and furnaces, but the potentialities of wealth beyond the dreams of avarice." Is this frank mixture of motives more typical? The answer to that must come from a properly critical and comprehensive study

of such declarations, supplemented by some direct knowledge of business leaders.

What will emerge will be a relation of immediate to ultimate motives. The latter are generally assumed; they are perhaps more explicit than usual in the above quotations. This is no special feature of industry. A lawyer may have to seek to obtain the acquittal of a client who he thinks is guilty. The ultimate motive is that by this means the standards of the law are maintained, but he has also immediate and self-interested personal motives. A political party is immediately concerned with getting itself into office or keeping itself there, and the incidents of that competition may appear sordid and self-seeking; it assumes that in the end such political competition is a public service. Industry has been based on the assumption of a similar relation between immediate and ultimate motives. Yet self-interest, while it is a general economic motive, has been taken to be *par excellence* the industrial motive. Industry is taken to be at any rate the great field of its abuse. To some extent, this is because there is a more general study of the conduct of industry than of the professions. Industry is a more massive social question; more people are affected in a more continuous way. Universities do not merely equip people for industry as for law or medicine; there is also a study of the industrial process of getting on, of competition and association and bargaining, which throws industrial practice into relief, and raises as regards industry in particular the general problem of the personal motive. There is no similar study of the professional problem, *e.g.* of getting briefs or a practice; no school of Theology gives lectures on preferment. Yet fundamental economic motives reach beyond industry. There is a very wide study of simply personal competition, of the qualities which in general create success, and of their relation to public service. That relation will not always be equally conscious; it will be least conscious where service is called for under conditions of greatest personal insecurity, and these are generally the conditions of industry.

It is true that great leaders of industry are among those who admit the libel, and hold that it must be raised to the dignity of a professional service. For example, Mr. Hichens writes that "if we are to solve the great industrial problems, it can only be by recognising that industry is primarily a national service, devoted to the good of the whole community." But by this it turns out that he means compulsory limitations on profits and wages, advisory but not executive control for labour, and shorter

hours. And Mr. Rowntree defines national service in relation to industry as the production of such goods as will be most beneficial to the nation, a proper distribution, and a proper regard to welfare in production. But these programmes, in part very controversial, are a different idea from the critique of industry that it is an occupation on a lower than average level of social motives and standards. How do these leaders regard this criticism, that the idea of service in industry "would emphasise that there are certain things, like advertising, which the 'service can't do'" ?[1] Or "to snatch advantages, like any common business man?" It is this kind of professional attitude of which we have to ask whether it is attached to a genuine consideration of industry.

Now it has been *assumed* that the immediate motive of self-interest has in industry as elsewhere worked well enough as a method of giving service. Industry has the double function of providing a livelihood and providing a service, and these functions are strictly co-ordinate. The livelihood motive (*i.e.* the profit or wage motive) and the service motive are both liable to perversion—into profiteering in the one case, and sweating in the other. On different grounds, the relation of these ideas has been supposed to make a workable system. Adam Smith brought in the "invisible hand," because he was a moral philosopher as well as an economist, and a Scotch one at that; then there was Bastiat, with the complete theory of harmonies. The modern words are not quite so favourable; the "bye-product" view of Mr. Hobson is typical. As a bye-product of the self-interested action of individuals, there results on the whole, he says, a satisfactory measure of public service, since competition keeps goods cheap and increases their variety. We take the interested motive and "harness" it, and it works for us well enough. Well, of course, and how else does anything work? Service cannot be rendered in general, but only in the adaptation of motives to ends. Subject to the ordinary standards of honesty, is the livelihood motive, whether called a profit motive or a wage-motive, an inferior motive? The author does not think we can supersede it; "the instinct should be harnessed to the car of social progress, and not treated as a baseness to be stamped out of a more elevated social system." At the most, it is proposed to substitute for it the incentive of other rewards, still in order to get the "bye-product" of public service. Is it really fair, then, to speak of the public service as a bye-product at all? Results are got by methods. Regarding the whole field of

[1] Tawney, *The Acquisitive Society*, p. 196.

industry and its results, is it a balanced statement to say that the public service is its bye-product? Do people dine for pleasure or for health? Do they marry for love or to maintain the race? A general critique of human nature would be a different thing. But we judge all activities by their life results, and the assumption in industry has been that daily practice has been adapted to produce public service.

The question then becomes, whether there are conditions special to industry in which this assumption is no longer safe. The answer is, Yes; the development of great businesses upsets the *prima facie* assumption. This tendency is one of the main features of industry in the twentieth century. At the last census, 1½ per cent. in number of the manufacturing establishments of the United States (there are no similar figures for this country), produced 50 per cent. of the value of manufactured products. This evolution has been mainly defensive, as a result of cheap transport, which cuts out the local advantages of smaller producers. It was not a neglected, unforeseen, surprise development which ought to compel the rewriting of economic science. On the contrary, the modern theory of competition was derived by Cournot from that of monopoly, by multiplying the monopolists. But the assumption of public service was safe only until monopolistic conditions actually arose. By a well-known law of exchange, monopoly is the condition under which the greater profit can be derived from a smaller service. In the interests of service, therefore, there are two lines of policy: either to restore competitive conditions, or to impose public ownership. But the latter is not considered to be applicable to the industries that are most monopolistic, namely, the textile and chemical industries; it is freely debated with regard to mines, land and railways. The former, the restoration of competition, will probably lead to more moderate views of the function of competition, especially since, as compared with Victorian times, it is hedged by more equal bargaining power. But it will be very difficult to undo a great deal of the results of combination; you cannot unscramble eggs. And, therefore, in this difficulty, the ideal of service has had to be independently stressed upon and, by implication, against industry. It does not follow; it must be appealed for. Certain powers of the law stand behind that appeal. A few abuses, and the appeal becomes an accusation of modern industrial standards.

This development, however, itself increases in many ways the *possibilities* of public service in industry. The war showed that

the industrial principle, the treatment of industries as units, had many advantages. Everything which lessens insecurity *can* release effort in other directions. It is in the great establishments, with a large goodwill, and some buffer between them and failure, that there has taken place the development of welfare work. On the same lines, it is thought that the question of unemployment will be handled most adequately when each industry is organised and unified for the administration of its own schemes. In asking how this recent development will work out, for greater service or greater dis-service, we have before us the fact that legal methods of control have not been very successful. And great leaders of industry, hear and, as we have seen, sometimes accept, the appeal or the charge that some new standards of industrial practice should be self-imposed.

For example, the new conditions are monopolistic rather than monopolised. There is competition, but it can be hampered. The test of service can only act if the consumer is free to choose between rival offers of service. But if industrial strength is used to prevent the access of rivals to the consumer at all, then standards are degraded. A great concern can say, "You must deal with us entirely, or not at all," and the consumer cannot afford not to deal with it at all; or it can deliberately lose money out of its reserves in order to wreck a fair competitor. In some respects, we did not know all the possibilities of competition until the appearance of combination. It is to such operations as the boycott, the destructive rebate, the tying contract, the discriminated price, that the criticism of standards specially attaches. The United States Act of 1914 marks these as unfair trade, and forbids them; because they prevent the test of service from working. Making a profession of industry means organising the opinion of an industry, through its various associations, so as to create effective censure upon them. The cotton trade is already able to obtain a loyal observance of short time, even by works which could run full, in order to share the burden of unemployment. This code of honour is to hand if, in England, methods of disservice are threatened through mainly foreign example.

But, as a matter of honour, it is perhaps assuming too much to express this as the making of a profession of industry. There are professions from which British industry has nothing to learn; will it be saved by adopting the lofty standards of conduct which prevail, for example, in politics? The test of service is a call to industry that, in the difficult and inevitable conditions which have arisen, it should save its own soul. To professional pride

there corresponds industrial pride, in those marks which distinguish industry as an occupation—its inventiveness, resourcefulness and bearing of risks. To the claim that industry should be made professional in its standards, there might be a retort in the suggestion to make some professions more industrious in theirs.[1]

But, because at least of the complexity of industry, is it anyway a sphere in which chivalry would be a condition of success rather than of failure? A large merchant told me that on strictly Christian principles he would certainly fail. What is the type by which the possibility is to be judged? Here is one type, the evidence of a magnate before an important Commission; a *locus classicus* almost of his point of view:—

> "Do you think it fair that the consumer should pay a dividend to your company on all this extra capitalisation?—I think it fair to get out of the consumer all that you possibly can, consistent with the business proposition.
>
> "You state that as an ethical proposition before the commission, and you have to stand on that ethical position for fair play. Now I want to know if you think it a fair ethical proposition, independent of the business view you put on it, that the consumer should pay dividends on this twenty-five million dollars of over-capitalisation?—I do not care two cents for your ethics. I do not know enough of them to apply them.
>
> "Well, as a business proposition, is it right?—As a business proposition, it is right to get all out of business that you possibly can."

Industry does produce this type. Is industry a system in which this type is likely to be permanently successful? Is it the proper standard of reference by which to judge of possibilities?

Having seen a good deal of industry and its leaders in this country and abroad, as a general answer I say, No. It happens that this particular individual was not paying a dividend. I think that the truth lies with another writer who says that industry, like other activities, requires for permanent success two kinds of faculties, the special and the social. Successful men he finds to be very distinctively human and social, above rather than below the average, and this is true of business as elsewhere. Of the bad types, the worst we can say is that they do not rise above their environment, they find the game going on, and play it according to the accepted rules. When badness seems to succeed,

[1] The recent Royal Commission suggests, as a reform, that the old Universities should work for twenty-four full weeks per annum.

it is often because it is associated with something else that is good—system, perseverance, foresight.[1]

Because every social group is a partial interest, its standards are in some respects above, in others below the average of the community. In some circles a man is thought to be business-like if he answers his letters. I have heard an officer tell his section to "Lie down, *please*"; but he was probably temporary. Industry is below average in some refinements that obtain in art, authorship, or low-risk professions. But it is above average in other qualities of great social value. Very great people, as Mr. Cooley says, not merely big people, have been strongly competitive people; he instances Lincoln. Of course, the very things which make industrial activity and competition attractive to some natures make it repulsive to others, who turn from it at a glance. We have recently had an example of a great business man's ideas of portrait painting; some artistic writers like Ruskin have treated industry with as imperfect regard for its *motif*.[2]

But I do not wish to minimise the modern problem of fair trade. Failing self-control, there is the Law; and the Law is an instrument of criticism as well as of control. The Factory Acts may be taken as a running criticism on some decades of evolution; these requirements had to be imposed. The Mines Act of 1842 included a clause that mine-owners must give inspectors proper access to the pits; this was an amendment in the Lords, after a great coalowner had said that the inspector could get down the pit as best he could, and when down, so far as the owner was concerned, could remain there. The Law is a criticism, because it is aimed not at the type, but at the worst case; it indicates not what is usual, but all that can be assumed. The grave problem of ensuring that industrial motives work out to public service can be settled by control on the industrial basis, as in the cotton trade, industry remaining jealous of the great qualities which distinguish it from the professions. Leaders and directors have, through the publicity of reports, an appeal against the insistence of shareholders. Many reports could be quoted to show this. It is on their *morale* that the decency of modern industry depends. Evolution is strengthening their position, especially through association with each other. The Universities can give them, not book-keeping, but the sense of historical

[1] Cooley, *Personal Competition*. Emphasises the general, extra-industrial range of problems that are often narrowed to industry.

[2] *e. g.* The "whale and whitebait" argument in *Unto this Last*.

evolution, and the unforgettable judgments of Adam Smith, Mill and T. H. Green.

There is a relation between the problem of service and of *function*. Industrial evolution has separated the shareholder by wide distances from the industry in which he invests. This result in itself is often made a matter of criticism, but in fact it implies a wide extension of the power of service. In two ways; first, because service is no longer limited, as in the early days when each man worked with his own property, by his own physical and nervous capacity; second, by the wide distribution of the service. Although some criticisms appear to imply that the result is undesirable, it would be an intolerable limitation if investment had to be localised. There goes with the separation a less direct personal relation between the ultimate employer and the work-people: but I think that work-people now desire to choose their own friends in their own way. We come nearer to what this criticism intends in the statement that, by this modern separation, industry now supports a "functionless" shareholder, who "lives on labour and not by it," or who, in the words of the late Prime Minister, "levies a private tax on industry."

This is not the time for technical argument, but what has generally to be decided is whether investment is an industrial function. I think it is; and that we cannot limit the industrial idea of function to personal exertion, mental or physical. We shall at once be involved in middle cases between the two, such as the question whether it is a function to take risks. Apart from the shareholder, there will then arise the question of insurance as a whole in relation to industry. And, of course, if we are to justify such phrases as "living on labour and not by it," the consequences must be faced; it makes no difference in principle to substitute a fixed shareholder's remuneration called interest, for a fluctuating one called profit.

I think that the real target of attack in this case is something different. It is that a great deal of function costs little or no effort or sacrifice; and if we follow that up, it results from a distribution of the national wealth the causes of which are only in part industrial. I do not suggest that, as has recently been urged, adequate funds for investment can only be obtained on the condition of great individual accumulations of personal wealth. But that question is partly one of such transfers as take place by inheritance, marriage, nationally organised gambling, and so forth. Partly, it is industrial; since the law of chances makes some investments more continuously fortunate than others, and

accumulates lending power and control. But industry itself does not and cannot look behind the function performed. The instrument devised to deal with the effort or sacrifice that is behind the function is taxation, which is a powerful form of direct action, and is coming to be recognised as an instrument, not only of revenue, but of "constructive social ethics."

The third of my problems, however, arises at once. The question of status is that of the right to control industry. Why should this vest in the distant shareholder who has never seen the business, and not in those whose mental or physical labour operates it? There is a powerful demand for a review of this position. It has been suggested that in the end the positions will be reversed, that the nearer service of labour will employ capital, paying it off at a fixed rate, and governing the industry itself. One can imagine under these conditions a meeting on Tower Hill, presided over perhaps by Lord ——, of sweated capitalists, to protest against the reduction of the rate from 2 per cent. to $1\frac{1}{2}$, and demand a Trade Board. But the present idea has not been worked out; it is not possible to guarantee standard rates to both capital and labour, unless the income of the industry is fixed and certain. Any solution is within the fact that risks must be taken by one side or both.

The problem of status implies that the shareholder has too much function, or, since he often does not exercise it, that the workman has too little. And modern ideas of status turn on the question of what may be called a franchise in industry, or a constitution for industry. It is specially with reference to this that we have the strong statements, from important leaders of the Church, to which I have referred, that the existing arrangements are an outrage, an insult to personality. Industrial democracy is now an ideal that includes much more than it did when this phrase was applied to the growth of Trade Unionism. That growth has resulted in a dyarchy in industry, which is conducted on terms, rather than by a constitution; these terms being fixed by bargains between the two sides of this dyarchy. There is no better example of this than the first clause of the basis of discussion in the recent engineering dispute, which is as follows: "The employers have the right to manage their establishments, and the Trade Unions have the right to exercise the proper functions of Trade Unions." Is it possible to substitute for terms of settlement something more organic, creating a fair distribution of direct control of industry, and in effect creating an industrial franchise?

For historical reasons, if for no other, this is a proper question

to raise. There ought to be scrutiny of the credentials, because of the conditions under which capitalism grew up. Taking 1770 as the beginning of the industrial revolution, there followed a whole century of industrial formation before the foundation of public education, a public franchise, and the definite acceptance of free bargaining. All these arose about 1870, by which time industry was fixed and set in the form of shareholders' control and the wage relation. This century of unequal development means that it is *very possible* that the industrial result is biassed; so that a review of it is natural. On general considerations, what is likely to happen under these conditions? At any rate we know how agricultural tenures were affected by them. It is noteworthy that schemes to modify the position by profit-sharing, beginning in 1866, have mainly been met with the difficulty of grafting them on to a system which by then had a different way of looking at relationships. Had such schemes grown with the growth of modern industry, beginning when it was still plastic, the holding of capital, and the control thereby obtained, might now have been a very different thing. The unequal development of the industrial and other sides of national life ought to prevent any merely fatalistic acceptance of the nature of modern industrial control.

On the other hand, we cannot simply assume that the only right method of organisation for all forms of human activity is the political method. But this assumption is commonly made. For example, the "insult to personality" in the present status is made to depend on the absence of a franchise of the political kind, whereby workmen would have through elected representatives executive control over their establishments or their industries. No amount of "terms of settlement," it is held, is a proper substitute for this mark of personal freedom; no amount of "advisory control" on Works Committees or Whitley Councils is equivalent to it. But this transfer of ideas is too quick; industry is in its elements not similar to politics. For example, there is in politics practically no question of the citizen leaving the State because he dislikes the law, or of his ceasing to be available as a taxpayer or for defence; but in industry the withdrawal, or export, or failure to be forthcoming, of capital especially, is an important consideration. Industry is also a system in which some variety of form is essential—family concerns, co-operative bodies, pioneer enterprise, municipal trades, as well as the established joint-stock principle. In practically all cases industry is not simply an administration; it is a different kind of thing. Its constitution must have reference to its own nature and

function. This can be shown by reference to the parallel cases of the Army, where no question of franchise can arise, and the Church. *Mutatis mutandis*, has the ordinary member of the Church more control over its policy and appointments than the ordinary worker has over those of industry? Has he a better franchise? I think that the comparison might modify some episcopal attacks on the constitution of industry. The question is a more difficult one than can be settled by calling industry an outrage and an insult.

It is possible to consider the conditions of a complete franchise in industry; they are those of a complete partnership. This would mean, in the first place, that all the risks were distributed over all the parties, no one being entitled to remuneration on any standard or minimum whatever, but simply *pro rata* according to the amount of the divisible surplus. It would mean, in the second place, some method of equating a definite amount of invested labour with a definite amount of invested capital. It is possible to imagine this done, in spite of the variety of labour, by taking some grade as standard, and measuring from it, as is done in the cotton trade. This would be full partnership, and every partner, whether shareholder or employee, would have a voice in the executive and detailed policy of his firm or industry. In some industries, of course, the majority of votes would then be labour votes, in others shareholders' votes; but they might cease to vote as separate interests.

This is a theoretical construction of completely shared control or partnership. But, to bring it down to present conditions, the *fact* of partnership would still remain even if some modification were made in the *method* of remuneration of either party, provided there was no change in the *basis*. The fact that one partner was paid current wages, while the other waited for a dividend. would not by itself show a change of basis; provided the amounts received worked out the same, as if there had been a general dividend. Of course, as a question of *method*, labour has to be paid over short periods, because it has no reserve to wait on; but capital has, behind dividends, the ordinary earning power of the individual. The question is whether the *method* of wage payment ought to carry with it exclusion from voting rights; and that in turn is the question whether it is merely a method, *i.e.* a time advance, or whether it is also an alleviation of risk, ensuring to labour payments which it might not have obtained had it waited for the distribution of the realised surplus. That is to say, the fact that one party receives wages is not, *prima facie*, sufficient ground for the absence of a franchise.

In other words if, working from the idea of a complete partnership, you make a modification in the method of payment of some of the partners, that modification should not carry any disability, unless it also carries some privilege in another way. The argument which would make this out would be concerned with risks, and would be a difficult one. It would have to show that some risks fall more heavily on capital, and less heavily on labour as a whole, than they would on the partnership *method* of division. It is not enough to say that capital takes control of industry because it takes the financial risk; that is a tautology, that capital takes the risk of capital. Consideration of pioneer risks, development risks, investment risks, and employment risks would create a problem of relative incidence of some difficulty. We should also have to consider the fact that risks fall on capital by an all-round distribution, but that those of labour are more concentrated on individuals through unemployment. But, at any rate, it would be difficult to make a case showing such distribution of industrial risks as fairly to give *all* the executive control to the investors of capital.

Then is it right to hold that the problem of status is really the crux of these other questions of motive and function? Is there a usurpation of control, and a wrong refusal of a franchise—the result of inadequately guarded industrial evolution? It is executive control that is in question, what the Continental developments call *real* control, as distinct from advisory or, in their words, *theoretical* control.

No, it is not right to hold this, because what would this status, or franchise, or share in control mean? It is usually supposed that it would result in some participation in the executive functions of direction, by directly elected representatives of labour. The result, however, would be more than this. If all parties came into rights of control, they would all equally come under that joint control. Capital and labour would not control capital; they would control labour and capital. What is now the sphere of the Trade Union would come under some degree of shareholders' control. But for historical reasons, which have created the existing dyarchy, this result is most improbable. The separate organisation of labour in industry is now bound up with a political movement to which this separation is essential. That line of development is well defined and unlikely to be undone. In other words, whatever might be theoretically right, the fact is that the full results of industrial partnership would not now be acceptable.

It is possible to abandon logical ideas altogether, and, without infringing the independence of Trade Unions, create some degree of executive labour control simply as a practical solution of difficulties. As a practical fact, however, it is very open to question whether labour directors in individual concerns would sit; they would be involved in the competitive process of firms, whereas the loyalty of the workman is not primarily to his firm but to his Union. So great an industrial leader as Mr. Rowntree thinks it would not work. On councils of a whole industry this difficulty would not arise; but the industry, for *executive* purposes, would then have been unified, and this cannot be forced on industry in general. I think we are bound by historical results. To the question, "What is the way to Manchester?" there was the reply, "If I was going to Manchester, I would not start from here." Status must be developed on some other lines.

This means—(1) that the industrial idea, that is, unification for advisory purposes, is extended, and that within this joint advisory control terms of settlement continue to be the rule; (2) that the idea might not only work down to Works Committees and District Committees, but possibly also up to some National Council of Industry, whose work was taken seriously. The Continental term, theoretical control, applied to this result does less than justice to its possibilities. The idea has so far been to make this development voluntary, except in quite unorganised trades; it may be necessary to make it statutory. One National Industrial Council has perished of neglect, another was strangled at its inception; the second part of the Mines Act has not been operated. That is all to the bad, fuel for unrest. But, with the exception, as I have said, of three fundamental industries, everything is converging toward this result as the next step, and, within the limits of historical results, the step which must be tried out. It can be of the greatest assistance for international consultation on industrial questions. Of course, it has nothing like the pretence of a new system. The development of industry, like that of personality, is the stages of a self-realisation which evolves, as T. H. Green taught, its own progress; subject, in the case of an organisation of persons, to the development of personal motives and standards themselves. That is a terminus of argument. Nobody knows much more of the land to which the ship would go than that it is "far, far ahead"; it is as true that the land she travels from is far behind.

D. H. MACGREGOR.

GROUPING UNDER THE RAILWAYS ACT, 1921

In the Railways Act, 1921, the short-lived Ministry of Transport, which, though it only came into existence in 1919, is already marked out for abolition, and its even shorter-lived head, the "business" minister, Sir Eric Geddes, have built for themselves a monument which is certainly conspicuous and is likely to be lasting. Beginning with the recognition of the political fact that the United Kingdom has ceased to be united, and therefore dealing with the railways of Great Britain only, it introduces three changes, each of which separately may fairly be described as a revolution.

(1) It combines all the main railways of the country together with the smaller companies within their respective areas into four new groups.

(2) It sweeps away that legacy of a bygone and simpler age, the whole inextricably complicated system of statutory maximum rates coupled with a nominal freedom of the companies to vary rates within the maxima, and substitutes therefor a new Railway Rates Tribunal with plenary power to fix (and subsequently vary) such actual rates, fares and charges as may produce for each company a standard "revenue," fair both to the company and to its customers.

(3) It recognises that the wages and conditions of employment of the staff engaged in an essential public service can no longer be regarded as a matter of private bargain—still less as matter for mere employers' dictation—and establishes a hierarchy of councils and boards, culminating in a National Wages board in which representatives of the public have the final voice.

In other words, Parliament has definitely asserted the right to intervene to secure in the public interest harmony and co-operation in railway management (1) by substituting for a welter of competing companies, ill matched alike in size, in financial strength and in intrinsic resources, four strong organisations, each based on a semi-monopoly of an extensive territory, leaving it for the future to decide whether they will work their undertakings in co-operation, or, where their areas meet or overlap, in orderly and regulated competition; (2) by transferring the control of a subject essentially economic from the rigidity of statute law

and the formalities of a law court, with its precision of issues and its strict limitation of the parties to the issue, to a business tribunal entrusted with the function of surveying the question in all its bearings, of securing, on the one hand, from the traffic as a whole a reasonable return to the companies on the capital invested, and of seeing, on the other hand, that each separate class of traffic contributes, on what may be called "equality of sacrifice" principles, its fair share of the total sum required; and (3) by providing a constitutional means for exhaustive discussion of all questions affecting the pay and conditions of service of the staff, first between the parties themselves, and then by the same parties face to face with coadjutors who not only bring fresh minds to bear upon the matter, but also represent the public interests involved; so minimising the probability that the public will suffer from a strike, local, or it may be national, due in its origin very probably to the hot-headedness or unreasonable obstinacy of a small group or even a single individual. Further, the Act provides for the compilation and publication of adequate statistics of operation, in order that the Rates Tribunal and the public may be in a position to judge whether the management of the railways under the new conditions is carried on with that efficiency and economy which it is the expressed object of the Act to secure, and on which the right of each company to its standard revenue is made to depend.

It is not possible within the limits of an article to discuss all three far-reaching reforms. What follows, therefore, will be confined wholly to the question of grouping, except so far as, a reference to the introduction of the new conception of a "standard revenue" is necessary to make intelligible the financial basis of the new groups.

The official Railway Returns enumerated 214 separate railway undertakings as existing in Great Britain at the end of 1921; the Act schedules 121 of them as to be combined into four groups. The remaining 93 undertakings may be divided into the following categories:

(*a*) Undertakings belonging jointly to two or more companies now assigned to different groups [*e. g.* Cheshire Lines];
(*b*) Unimportant light railways [mainly narrow-gauge];
(*c*) Urban and surburban railways, mainly worked by electricity, and confined to passenger traffic [*e. g.* Metropolitan, Metropolitan District, London "tubes" and Mersey Tunnel];

(*d*) Undertakings with railways not yet constructed or derelict.

The exceptions are numerous but, except the London railways and certain of the larger "joint lines," relatively unimportant. If the lines that are jointly owned by two groups are counted as grouped, all but a fraction of the capital, of the mileage, and of the freight—though not passenger—traffic of the country is included in the four groups.

The Act, in prescribing the constitution of the groups, divides the companies within each group into two classes, referred to respectively as "constituent companies" and "subsidiary companies." A constituent company is to be "amalgamated"; a subsidiary company to be "absorbed." In other words, constituent companies become parts of the new larger entities, their stock-holders exchange their old holdings for corresponding holdings in the new group company; stock-holders in subsidiary companies are bought out, and the companies themselves disappear. The four groups are described in the Act as

(1) Southern,
(2) Western,
(3) North Western, Midland and West Scottish, and
(4) North Eastern, Eastern and East Scottish.

The titles which they have since assumed, and by which they will in future be known, are:

(1) Southern Railway,
(2) Great Western Railway,
(3) London, Midland and Scottish Railway, and
(4) London and North Eastern Railway.

With only one exception the names of the great companies, which, though they were not the earliest names, have been famous in railway history for nearly three generations, have disappeared. The name, London and North Western dates from 1846, Midland from 1844, Great Northern from 1845, London and South Western from 1839. All are gone. The Great Western Railway alone, enlarged but unchanged like the great engineering works of its author, Brunel, still retains the name in which it was incorporated by its original Act of 1835.

The groups are respectively constituted as follows:

(1) Five constituent companies: the South Western; the London, Brighton and South Coast; the South Eastern; the London, Chatham and Dover; the South Eastern

and Chatham Managing Committee; together with fourteen subsidiary companies;

(2) Seven constituent companies: the Great Western; the four coal lines serving the Port of Cardiff (the Barry, the Cardiff, the Rhymney and the Taff Vale Railways); the Cambrian; and the Alexandra Docks and Railway Company; together with twenty-six subsidiary companies;

(3) Eight constituent companies; the London and North Western; the Midland; the Lancashire and Yorkshire; the North Staffordshire; the Furness; the Caledonian; the Glasgow and South Western; and the Highland; together with twenty-seven subsidiary companies;

(4) Seven constituent companies: the North Eastern; the Great Central; the Great Eastern; the Great Northern; the Hull and Barnsley; the North British; and the Great North of Scotland; together with twenty-six subsidiary companies.

The Act sets up a special Amalgamation Tribunal with powers to settle the terms of combination, without appeal except on a question of law. Until December 31, 1922, it was open to the companies to frame voluntarily schemes for amalgamation or absorption. These schemes were to be submitted to the Minister of Transport, and by him referred to the Amalgamation Tribunal, which was required to accept the scheme on being satisfied that it conformed to the requirements laid down in the Act. Failing voluntary agreement before the due date, the duty of preparing a scheme and imposing it upon the companies falls on the Tribunal. As a matter of fact, when the 1st of January, 1923, arrived there was little left for the Amalgamation Tribunal to do. Twenty-five out of the twenty-six constituent companies had agreed upon the terms of amalgamation, though in some cases too late for formal approval to have been sought and obtained. Three out of the four groups were fully constituted. In the North Western group alone, one constituent company, the Caledonian, remained to be settled with. The absorption schemes were not so far forward, though the Great Western Company had acted vigorously and come to terms with twenty-three out of its twenty-six subsidiaries. And since then terms have been arranged with the bulk of the subsidiary companies in the Southern and London Midland and Scottish groups. The Act provides that payment to stock-holders in absorbed companies may be made either in

cash or in stocks of the absorbing companies. In fact, payment has very generally been made in the latter form, and very little actual money has passed. There surely was never a better testimonial to the genius for compromise of the English character than is furnished by the fact that these vast and complicated financial transactions have gone through in almost every case by mutual agreement between the parties.

It is worth notice that the process of amalgamation has been carried out sometimes in two, in one case even in three stages. The North Eastern agreed terms with the Hull and Barnsley, and then negotiated as one company with the remaining constituents of the group. Similarly, the South Eastern and the London and Chatham, which were inextricably involved with each other by the fact that the lines of both companies were worked by the statutory South Eastern and Chatham Managing Committee, came to a settlement between themselves, and then as provisional partners dealt with the South Western and Brighton Companies. The London and North Western amalgamated with the Lancashire and Yorkshire, and issued its own stocks in exchange for those of the smaller company; then the enlarged North Western came to terms with the Midland; and then finally the inchoate North Western-Midland combination negotiated with the remaining constituent companies of the group.

It will be observed that in the conversion of the stocks of the old companies into those of their new group company care had to be taken to preserve existing priorities. In the case of the well-established and prosperous companies, those of their stocks which bear a fixed rate of interest have been exchanged into such an amount of corresponding stock of the new company—debenture for debenture, preference for preference, and so on—as will produce the same income as before. And as the prior charge stocks of the various companies carry varying rates of interest, the effect is that the nominal holding in the new company may be either larger or smaller than it was in the old. While on the one hand, for instance, £100 2½ per cent. Midland debenture stock is exchanged for £86 6*s.* 8*d.* of 3 per cent. London, Midland and Scottish, on the other hand, £100 of 5 per cent. South Eastern debenture stock is exchanged into £125 of 4 per cent. Southern Railway debenture stock. Naturally, where the income is not secure, still more when interest is in arrear or dividend not earned, the holders have to accept either an amount of the corresponding new stock producing a smaller annual income, or to receive new stock of an inferior denomination, or even to accept a reduction

in both forms. For instance, £100 of Cambrian C debenture stock, which, except for occasional lapses, yielded 4 per cent., and was cumulative, is exchanged for £70 in Great Western 5 per cent. non-cumulative preference stock, yielding only £3 10*s*. On the other hand, there were stocks of important companies which have benefited considerably by the new grouping. The debentures of the Great Central or the London, Chatham and Dover, for instance, were for all practical purposes secure. But they were not "Trustee Stocks," that is, stocks in which trustees are authorised to invest unless expressly forbidden by the instrument creating the trust, because neither of these companies was paying a dividend on its ordinary stock. As soon as they are converted into prior-charge stocks of the new groups, they automatically become, under the provisions of section 15 of the Act of 1921, fully "gilt-edged" securities.

As for the ordinary stocks, their values are so dissimilar, and consequently their treatment so different, that it is impossible to generalise as to their fate. At the one end of the scale we have £100 South Western undivided ordinary stock converted into $\left\{\begin{array}{l}\text{£80 preferred,}\\ \text{£94 11}s.\text{ 3}d.\text{ deferred}\end{array}\right\}$ ordinary of the Southern Company; at the other end Cambrian shareholders surrender £100 of ordinary stock in exchange for £2 8*s*. 6*d*. of Great Western ordinary stock, not ranking for dividend until 1929.

One point in connection with trustee securities which gave rise to considerable discussion may be mentioned here. In England, as is well known, a company does not recognise trusts. Trustees are entered in the stock registers merely as so many joint owners. The Registrar, when he sees stock registered in the names of A, B and C, no doubt takes it for granted that they hold as trustees. But he has no official knowledge of the fact, and it is no concern of his, if A, B and C sell the trust security and divide the proceeds among them. But he is bound to get all the signatures. In Scotland the law is different. Trustees are registered as such, and they can act by a majority. Many holders of stock in the Scottish railways objected to give up the system to which they have been accustomed, and which they regard as superior to the English. In the result it has been arranged that the Scottish form of transfer and certificate can be used by buyers or sellers domiciled in Scotland if they so desire.

One effect of these amalgamations is a great reduction in the number of different railway stocks. Till recently there were over 350 quoted on the London Stock Exchange, besides

an indefinite number of small companies' stocks only dealt in locally. Several of the large companies had about twenty different stocks apiece. The four groups will only have among them twenty-seven (not counting as separate classes issues of debentures at varying rates of interest but having the same security).

The Great Western will have five only (debentures, rent-charge, guaranteed, preference, ordinary);

The Southern will have—leaving out temporary stocks—six (debentures, preference, and four ordinary);

The London, Midland and Scottish—also leaving out temporary stocks — will have five (debentures, guaranteed, two preferences, and ordinary).

The London and North Eastern will have seven (debentures, first and second guaranteed, first and second preferences and preferred and deferred ordinary). In this group, the six constituent companies had amongst them nearly 100 different stocks, to say nothing of the stocks of the twenty-six companies to be absorbed.

Though the amalgamations are not yet complete, it is already possible to say that in the final result the nominal capitalisation of the railways of Great Britain has been reduced. The nominal capital of many of the poorer companies has been reduced. On the other hand, the nominal capital of the Midland Railway was increased by over £70,000,000 a generation ago, through the refunding of all its prior charges on a uniform 2½ per cent. basis and the conversion of each £100 of ordinary stock into £100 preferred and £100 deferred. Now the process is reversed, and the nominal value shrinks enormously, for the stocks returning a fixed 2½ per cent. are exchanged into a smaller nominal value in the new group returning a higher rate, while the deferred ordinary is turned into undivided ordinary at the rate of £68 per nominal £100. The following table shows how the consolidation scheme has dealt with the securities of the four constituent companies in the Southern group.

	Capital on which Interest or Dividends were payable as at December 31, 1921.	Nominal Value of Holdings in New Company given in Exchange to the Four Companies respectively.
L. and S.W.	£59,045,148	£52,740,374
L., B. and S.C.	29,700,658	35,584,393
S.E.R.	33,462,718	32,165,107
L., C. and D.	30,386,473	24,356,923
	£152,594,997	£144,846,797

The position of the other three groups may be summarised as follows:

Total capital on which interest or dividend was payable:

	Jan. 1, 1922.	Jan. 1, 1923.
Great Western group	£147,256,336	£136,242,555
London, M. and Scottish group ...	455,292,862	335,297,585
London and N.E. group	342,037,058	370,000,000

Further statistics are as follows: [1]

		Southern.	G.W.	L., M. and S.	L. and N.E.
Mileage	route ...	2,114	3,665		6,385
	track ...	5,277	8,341		16,209
Rolling stock	engines	2,279	3,950	10,336	7,594
	carriages	10,261	9,962	26,703	20,685
	wagons	36,718	99,864	305,690	306,766
Number of employees		70,000	107,622		223,000

At this stage it will naturally be asked on what basis the comparative value of the different undertakings has been assessed. The Act lays down the basis on which the Tribunal shall value each undertaking. It may therefore be assumed that in negotiating voluntary settlements the representatives of each company have had regard to the value which they thought the Tribunal would, if the matter were left to them, attach not only to their own undertaking, but also to the undertakings of all the other companies with which they were combining.

Section 6 of the Act provides as follows:

> "For the purpose of determining the terms and conditions of amalgamation between any constituent companies or of the transfer of the undertaking of any subsidiary company, the amalgamation tribunal shall take into consideration all the circumstances of the case, and in particular the value on a net revenue earning basis of each of the constituent and subsidiary companies as a separate company, and its value as a component part of the amalgamated company: so, however, that regard shall not be had to economies or accretions of traffic or other circumstances tending to enhance its value as such component part attributable solely to the provisions of this Act relating to amalgamation and absorption;
>
> "Provided that, in the case of the line of one company being worked by another company under an arrangement whereby a percentage of the gross receipts of the line so worked is payable to the owning company, the amalgamation tribunal in determining the terms and conditions of transfer shall not take into account any higher charging powers than those authorised in respect of the line under the statutory provisions in force in the year nineteen hundred and thirteen."

The vital words are "the value on a net revenue earning basis of each of the . . . companies." What is that value? Before 1913, when conditions were normal and the net revenue of a

[1] While these figures may be taken as substantially correct, they can make no claim to absolute accuracy.

company varied very slightly from year to year, it would have been easily ascertainable. But since then the railways have come through nine wholly abnormal years, and during seven years out of the nine they were in the possession of the Government. From August 5, 1914, to August 15, 1921, the companies had, strictly speaking, no net revenue except the sums, amounting to a few millions per annum, which they received from miscellaneous non-railway sources (hotels, letting of property, etc.). Describing in broad outline what happened, we may say that the Government took all the receipts, met all the working expenses, and made up to the companies annually the same net income as they had earned in the year 1913. During the War the receipts (if we include what the companies would have received for the carriage of traffic on account of the Government had it not been decided that Government traffic should be carried free) roughly covered working expenses and the guaranteed income of the stock-holders. But after the Armistice wages and prices soared while the rates and charges were only tardily increased. At the beginning of 1920 the rates were sharply advanced, and increased still further later on in the year. But these increases, drastic though they were, coming as they did at a time when trade was falling off and unemployment growing, failed to meet the fantastic growth of working expenses. In the year 1913 the figures for *railway* receipts and expenditure were :

Gross Receipts ...	£124,860,000	Working Expenses ...	£78,874,000

For the three years following the Armistice they were as follows :

	1919.	1920.	1921.
Gross Receipts (including estimated value of Government traffic so long as carried free)	£185,377,000	£248,192,000	(Coal strike). £227,333,000
Working Expenses	171,991,000	241,398,000	236,721,000

For 1922 it is not yet possible to give corresponding figures. The official monthly returns showed that gross receipts were less than in 1921, such increases in traffic as there are being more than counterbalanced by lowered charges. As for the working expenses, we remained for the whole twelve months absolutely in the dark. The Government failed unaccountably to include this item in the compulsory statistics, and it is not the habit of English railway companies to give any information voluntarily. We did know, however, that wages had been considerably reduced and that the cost of materials had fallen at least as much. A reduction of ten shillings per head on the 740,000 persons who were employed on the railways of Great Britain at the date of the last return would mean nearly £19,000,000.

On the whole, we were entitled to assume that the figures for

1922 would show when published a great improvement on 1921, and a substantial net income earned. But it was very doubtful whether, in the case of all the groups, the net income for 1922 would reach the net income of pre-War days. On the other hand, it had to be remembered that a smaller proportion of a greatly enlarged gross income may give the same net as a much larger proportion of the old gross. The following formula, kept in round figures, but probably not very far away from actuality, will make this plain:

	Gross Receipts.	Working Expenses. (000,000's omitted)	Net Receipts.	Operating Ratio.
1913...	£125	£ 75	£50	60
1922...	225 (increase 80 %)	175 (increase 133 %)	50	78

Now that the accounts for 1922 are published, it is possible to give an outline of the exact position. The railways as a whole have done a good deal better than was expected, and have recovered their pre-War net revenue. Clearly they have benefited largely, not only from a reduction in wages, but also from the drop in the price of coal and steel and other materials. Most of the companies have increased their dividends; none have reduced them. The North Eastern, as is natural having regard to the exceptional severity of the depression on the Tyne and the Tees, has had to draw from reserve to maintain its normal rate of distribution. And one or two less important companies have done the same thing to a smaller extent. But on the whole a larger sum has been divided, and it has paid not out of reserves but out of current profits.

Still the profits of 1922 were earned at rates of charge which have now been considerably reduced. Concessions in goods rates, important in the aggregate, came into force at different dates during the year, but none of them were in operation for the whole twelve months. Similar concessions in passenger train rates were introduced in January, 1923; the current year will bear their full burden. Moreover, it is already acknowledged by the companies that further concessions will have to be made ere long. It may be added, however, lest any shareholder should fear for his dividends in the immediate future, that the companies have very large liquid resources. Not only have they considerable reserves accumulated both before and especially during the War, but they have received £60,000,000 by agreement from the Government, partly as payment for arrears of maintenance for which the Government was responsible, but partly as a free grant to help them over their difficulties during the period of reconstruction.

It has been necessary to give this brief sketch of a very compli-

cated position to appreciate the situation in which the Amalgamation Tribunal would have found themselves, had they been required to estimate the value on a net revenue earning basis of each of the companies in the future by taking account of the history of the previous years. For not only did the net revenue of the companies as a whole, as has been seen, fluctuate wildly, but as between individual companies the changes due to the War were even greater. On one line new works or munition camps sprang up by the dozen; on another the old traffic died away with nothing to replace it. Even traffic that continued to flow was diverted to unaccustomed routes. One cannot judge from the figures published, but it seems certain that some companies must have earned much more than their pre-War net income, and that others must have earned much less. And traffic, once it is diverted from an established route, will not come back at once, and may never come back at all. Further, the standardisation of railway wages all over the country has increased the working expenses of companies serving districts mainly agricultural considerably more than those of companies whose wage scales were already at the higher standards of the great towns.

In a wholly different part of the Railways Act is found the key to the problem which has had to be solved. Section 20 sets up a new permanent body, the Railway Rates Tribunal. This Tribunal by section 58 is directed to allow each company, and subsequently each of the four amalgamated companies, to make such charges as will yield them their "standard revenue," and the standard revenue of a group company is defined as the aggregate net revenues in 1913 of all the companies absorbed into the group. The companies then in their negotiations between themselves have in the main worked on the basis which they have assumed that the Tribunal would adopt, and which may be expressed as follows:

> Ignore the immediate past and the immediate future. Assume that each company entering the group would have been entitled to obtain from the Rates Tribunal authority to charge such rates as would have enabled it to earn its pre-War net income. This then may be regarded as the net revenue earning value to the group of the company to be brought in. Then assume that the rates of the amalgamated company will be in future such as to enable it to continue to earn as net income the sum of the net incomes of all the companies brought into the group. Then capitalise the annual value of the assumed net revenue of the group and assign to each company brought into the new group so much of the total capital of the group as corresponds to the ratio between the individual company's old net revenue earning capacity and the new standard net revenue of the entire group.

There are minor provisions dealing with interest on capital expended since 1913, allowance for capital spent before 1913 on works which had not at that date become fully remunerative, possibly reduction of the standard revenue if the management is not efficient and economical, and so forth. But the main basis of valuation laid down by the Act is clear.

A very slight acquaintance with the railway map of Great Britain is sufficient to enable the reader to perceive that the new group companies are very far from having a monopoly of the territories which they respectively serve. In France the railway system has grown up under a régime of territorial monopoly. Five of the six great *réseaux*—the phrase "net-work" is singularly apt—have exclusive occupation each of a segment of a circle centred on Paris, while the sixth has equally exclusive occupation of the country south of Bordeaux and Toulouse. And the system is so planned that the divisions between the segments fall, as far as may be, not along the lines of great traffic, such as from Paris to Lyons or to Rouen and Havre, but in regions of scant traffic, as in the case of the frontier between the Orléans and the Paris and Lyons companies in the barren uplands of Central France. Further, when two companies do offer alternative routes which are on the face of them reasonably competitive, as in the case of the Eastern and the Paris and Lyons railway between Paris and Central Switzerland, either the traffic is pooled, or sometimes the rates by the one route are deliberately made higher than by the other in order to force the traffic on to the approved route. And all this is, of course, done with Government approval in pursuance of a public policy deliberately adopted.

British railways have developed in a quite different atmosphere. Competitive duplication of facilities has as a general rule been encouraged by Parliament. There have been exceptions. Bills for a new line from London to Bristol competing with the Great Western, and for new lines to Inverness to break the monopoly of the Highland Railway have been in recent years deliberately rejected. But on the whole the attempt of a great company to obtain access to a town, even though it was already adequately served by existing lines, has seldom failed of success. In the result, it may be broadly said that for every important current of traffic there have hitherto been at least two competitive routes available. Further, sometimes by part ownership of joint lines, sometimes by running powers, whether statutory or merely by agreement, the great companies have spread their tentacles far outside their own central territory.

Now each company coming into its new group brings with it, not only the railways which it owns and its share of joint ownership, but also its running powers. It is true some of the joint lines are wiped out. For instance, the Port Patrick and Wigtownshire Joint Railways are at present owned by four companies, but all four are to be absorbed into the same new group. Similarly, running powers may be wiped out, as, for instance, those of the London and North Western over the Caledonian and of the Midland over the Glasgow and South Western. But a large number of lines, joint between two groups, and of running powers, enabling one group to penetrate far into the territory of another group, still subsist. Consequently, not only will competition along frontiers—frontiers not like those in France but drawn through the most important traffic points—still subsist, such as that made possible by the duplicate routes from London to Exeter and Plymouth; or from London through Birmingham and Wolverhampton to Shrewsbury, Chester and North Wales; or from London through Leicester, Nottingham, Derby, Sheffield, Manchester and the West Riding to Edinburgh and Perth. But further, in right either of ownership, joint ownership or running powers, the London, Midland and Scottish (really West Scottish) Company will penetrate into the heart of Great Western territory at Bristol, Cardiff, Swansea and Carmarthen; into the heart of London and East Coast territory at Southend, Yarmouth, Hull, Dundee and Aberdeen; and at Bournemouth into the heart of Southern territory. Similarly, the London and East Coast Company gets into the heart of London, Midland and Scottish territory at Stafford, Chester, Liverpool and Southport, at Glasgow and Helensburgh, and at Fort William and Mallaig. It is true that the Great Western and Southern groups are less mutually intrusive; but even so, the Great Western gets by ownership to Winchester and Weymouth, and in right of running powers to Southampton, while in return the Southern reaches Bridgewater, Burnham on the Bristol Channel, and Bath.

We may say, therefore, that the effect of the new statutory grouping is to leave the bulk of the territory of Great Britain non-competitive, but the bulk of the traffic still competitive. Whatever might have been theoretically desirable, it was not practically possible to go further at the outset. The grouping of companies, such as they had grown to be, was as much as could be included in a single Act. The enormous complications which would have been involved in dealing with the innumerable ramifications of ownership, joint ownership and running rights within the four corners of a single scheme, the objections of the railway

companies themselves, and the hostility of the public, would have foredoomed to failure any attempt to establish here the logical French system.

If we attempt to forecast the future, we may assume that for some time to come the new companies will be too much occupied with problems of internal reorganisation, with the settlement of their new standard rates, with attempts to revise the standard scales of wages, or at least to get rid of the most obviously indefensible extensions of those scales, to be able to devote their attention to inter-company relations. Competition for almost all important traffic will continue much as heretofore. Railway men have grown up in a competitive atmosphere, and will be loth to change their long-time habits. Further, there is no doubt that, though economists may have come to believe that public "utilities" can best render service if their monopolistic character is frankly accepted, the trader is still convinced that "competition is the life of trade." Only gradual change in this respect can be looked for; but that such change will take place seems reasonably certain. One must suppose that the companies will, in some cases at least, desire to round off their territories by sale or exchange of outlying lines; by agreeing in other cases to compete, over what one may call the less natural routes, only for certain specified traffics, or in certain limited directions; or, again, to exclude competition altogether by pooling arrangements.

Over this whole field the Act of 1921 has established a new system of executive control. The sphere of action of a company established by Act of Parliament is defined by its Act just as that of a limited company is defined by its Articles of Association. Beyond the sphere so defined the company cannot go. But a limited company can modify its articles by its own action according to prescribed forms. A statutory company must apply to the author of its being. A railway company established to construct and work a line from A to B can construct and work this line only but no others. If it desires to extend to C or to work another company's line, hitherto it has had to obtain the sanction of Parliament. Section 18 of the Act establishes a new prodecure. The Minister of Transport, where power is sought by one company to acquire, lease or work the railway of another, after due notice has been given and a public inquiry held, can make an Order. The Order is forwarded in draft to the Chairmen of Committees in both Houses, either of whom may, if he thinks the character or magnitude of the proposals such as to need submission to Parliament, require such submission. The Order may then either be

approved by resolution of both Houses, or be referred to Committees, and by them dealt with like an ordinary Private Bill. But unless one of the two Chairmen of Committees intervene the Order of the Minister is final.

Provision is also made in the Act for cases falling short of purchase, sale or exclusive working. A company may, after obtaining permission from the Minister of Transport, admit another to work jointly with itself over the lines of any *subsidiary* company which it has acquired. All rights and liabilities, whether statutory or by agreement, of the companies *inter se* are preserved by the Act, but if the agreements concern allocation of traffic or pooling of receipts, they must be disclosed to the Minister. And no such agreements can be entered into in future without his approval. But while combination is restrained on the one hand, competition is not left uncontrolled on the other. Section 52 provides that a company competing over a longer route may charge, not its own standard rates, but the rates of the shorter route, but that, if the longer route is "circuitous," that is, if it exceeds the shorter by more than 30 per cent. or in certain cases 50 per cent., the consent of the Rates Tribunal must be obtained; and that in deciding the question the public interest and the reasonableness of the competition shall be taken into consideration.

Assuming that the policy actually adopted was the correct one, there is no question that a compulsory public Act was the only way to carry it through. It has been said of late that the Act of 1921 is only the culmination of a tendency which has existed since the dawn of British history. True, no doubt. The Great Western Company already boasts a collection of 127 seals of absorbed companies. But 214 separate undertakings still remained in December last, and it is clear that voluntary effort would not have completed the final amalgamation till the Greek Kalends; and even of such combinations as would have been so effected not all could have been expected to be between the companies best suited in the public interest for combination. Almost insuperable obstacles lay in the way of great combinations on voluntary lines. Several chairmen, in submitting the new schemes to their shareholders, have frankly avowed their dislike to the whole thing, and maintained that their particular company at least, being neither too large nor too small to give adequate public service, should have been let alone. Further, the very heavy stamp duty of £1 per cent. on all issues of new capital, from which the present amalgamations are expressly exempted, has in the past stopped not a few schemes

which otherwise would have been brought forward. But there is a much more serious reason in that amalgamation schemes introduced by Private Bill have to run the gauntlet of opposition by all and sundry—opposition ostensibly directed to the defeat of the measure, but in fact intended to exact concessions as the price of withdrawal. In the two most recent cases of combination on a considerable scale, the establishment of the South Eastern and Chatham Managing Committee (which only fell short of being an amalgamation because it left the capitals of the two companies separate) and the acquisition by the Great Southern and Western of the Waterford and Limerick and two other smaller companies in Ireland, terms so onerous were imposed, in the alleged interests of certain petitioners, that the benefit of the scheme either in economy to the shareholders or in advantage to the general public largely disappeared. Not long before the War the Great Central, Great Eastern and Great Northern Companies deposited jointly an Amalgamation Bill, but found in a short time that the concessions likely to be imposed upon them were so great that they withdrew it without ever submitting it to a Committee. It was matter of common belief at the time that, had this Bill gone through, it would have been followed in the next Session by a Bill for the amalgamation of the London and North Western with the Midland and the Lancashire and Yorkshire.

It is interesting to compare with our own experience the fate so far of the grouping provisions contained in the United States Transportation Act, 1920. This Act provided that the Interstate Commerce Commission should prepare a plan for the consolidation of the railroads of the United States into a limited number of systems, but gave the Commission no power to impose upon any company the plan when prepared. The Act further laid down that a scheme should as far as possible preserve competition and maintain existing channels of trade, and that the new systems where they were competitive should be as far as possible equal between themselves in respect both of competitive power and value of property, so that they might be able to carry traffic at uniform rates. Subject to the consent of the Commission, companies might, without waiting for a general scheme, enter into combinations which conformed to the above requirements. But it was expressly provided that the nominal capitalisation of a new system should not exceed the value as determined by the Commission of the properties consolidated.

Under instructions from the Commission Professor Ripley of Harvard prepared and published a draft plan. This plan the

Commission considered, and then reissued with certain tentative suggestions for modification; and it has recently commenced public hearings in reference to the territory between Chicago and the Pacific Coast north of Portland, Oregon. But nothing further has been done up to the present except that one not very important voluntary scheme has just been put forward for approval. It is questionable whether any large scheme can ever comply with all the requirements of Congress. No rich company will voluntarily assume responsibility for turning a weak and inefficient neighbour into a partner except on its own terms. Capitalisations nominally equal may have very different market values; of two potential parties to a combination, the one company may have a property worth far less than its nominal property, and the other a property far exceeding. If the nominal capital of the combined undertakings is not to exceed the value of the properties brought together, the capital of the poorer company must be drastically written down or else the strong company must bring its property into the partnership at less than its fair valuation. And on these conditions no voluntary combination is ever likely to be brought about.

It remains to consider briefly how far the policy of consolidation is likely to produce the "efficient and economical working of the railway system of Great Britain" which it is the expressed object of the Act to attain, and what the result as measured in money may reasonably be expected to be. Sir Eric Geddes, speaking not only as responsible Minister but on the strength of two detailed estimates made by different persons and on different bases, has stated that £20,000,000 per annum is a fair figure for the savings which should be secured by amalgamation within comparatively few years. On the other hand, a distinguished railway official, certainly not temperamentally opposed to progress, puts down £4,000,000 as an outside figure. It is not for the present writer to judge between two such expert authorities. But no one familiar with the operating methods of other countries can doubt that great economies are attainable by the modernisation of some of our insular railway practices. And that the present moment is the unique opportunity.

Combination in itself can only save negligible sums. Directors' fees, a molehill much magnified by popular imagination, may be reduced by possibly £50,000.[1] The simplification of Stock

[1] The directors of all the Companies now included in the North Eastern group received £36,400 per annum. The new London and North Eastern Board will receive £25,000—a saving of £11,400.

Registers may render a few clerks in the registration office superfluous. But the headquarters' staff as a whole will probably cost more and not less. Larger undertakings imply greater specialisation of function, which means more responsible and therefore more and more highly-paid officials. English railways have always needed more men with time to think and to plan, free from the burden of daily office routine. Such men will be indispensable in the future. The reduction in the number of companies will greatly reduce the work of the Clearing House, and release many of its 3000 clerks. But they will be required for more elaborate intra-company cost accounting, and for accounting both between departments and between local divisions of the same department.

We hear much in general terms of superfluous rival expresses; but no express is competitive through the entire length of its run, and probably each individual member of the public regards as unnecessary only the trains which he personally has no desire to use.

The real economies can only result from a consistent policy of reconstruction, carefully thought out and relentlessly pursued. They may be divided under two heads, those that are matter of internal administration, and those that depend upon the co-operation of the customers of the railway. In the former class we may put standardisation of material, with consequent reduction in price, saving in the quantities required to be kept in stock, and in cost of handling, depreciation, accounting, and so forth. Or, again, we may take saving in manufacturing costs. The London, Midland and Scottish Company comes into possession—in addition to a dozen smaller concerns—of four first-class and well-situated locomotive shops, at Crewe, Derby, Horwich (outside Manchester), and Glasgow respectively. Each of them has hitherto built, in such small numbers as might be required each year, all the different classes of locomotives that its company used. If we assume that the Chief Locomotive Engineer of the new group will not be so much impressed with the local idiosyncrasies of the separate sections of his system as their respective locomotive superintendents have been in the past, and that he accordingly arranges to build 200 standard goods engines in one factory, 200 standard express engines in another, and so on, the reduction in manufacturing cost due to mass production will undoubtedly be large. It must not be forgotten, however, that changes such as these will meet with opposition from thousands of officials and employees, will upset tradition, disturb long-established habits, and may uproot large numbers from their

settled homes. It will be natural for the new managements to hasten slowly. On the other hand, the public are entitled constantly to hold before their eyes the fact that it is only on condition of efficiency and economy that the standard net revenue is guaranteed to the shareholders.

The field for economies needing public co-operation is perhaps even larger than that for internal reforms. Two instances of the first importance may be given. Great Britain as a coal-producing country is second only to the United States. America has for many years handled its coal traffic in units of not less than 50 tons —the unit has gone up of late years to 70, 90, and even over 100 tons. Other countries employ wagons of 20 or 30 or 50 tons capacity. Great Britain still adheres to the use of a toy truck holding only 10 tons, and belonging as a rule not to the railway company but to the private traders. With one exception. The North Eastern Railway, having the double advantage of ownership of the trucks working over its system and of a monopoly of the coal-fields of Durham and Northumberland, has gradually educated its traders to the use of 20-ton trucks. The South Wales coal-fields, a self-contained area, produces, very largely for shipment, 50,000,000 tons a year. So long as there were a dozen railways and half a dozen dock undertakings contending for traffic, it was too much to hope that a drastic reform would be introduced. But now that the Great Western Railway is in sole control of the whole area, it is not too much to hope that the company will impress upon the coal trade the urgency of reform. The resulting economy would be very great, and would benefit alike the coal-owner, the railway company, the shipowner, and the British consumer, and ultimately would by cheapening coal exports help the general foreign trade of the country.

Another instance may be given. Now that after many years of waiting we at length have figures showing what the average charge per ton-mile is, it is established as a fact that our merchandise rates are higher than in the other countries which are our important competitors. Partly, no doubt, this is justified by the higher capital cost of our railways relatively to the volume of traffic which they carry, but it is due in much greater degree to the excessively costly methods of carriage. English traders are accustomed to consign their traffic in retail quantities, and to expect it to be carried at almost passenger train speed. We now know—we could only surmise before—what this means in operating cost. It means that the average load of a so-called loaded

truck is less than one-third of its capacity; that the average engine load is less than half what the engine is capable of hauling; that rolling stock, vastly in excess of what would be regarded in any other country as adequate to handle the traffic, needs to be provided and maintained together with thousands of miles of sidings to hold it; that so much shunting is needed in congested yards that for every three miles a goods train travels a locomotive is employed for a whole hour. It is impossible to believe that the advantage to the trader is worth its cost. Hitherto he has been in a position to say that cost to the railway company is no affair of his; if he helped the company to save, the saving would go to the shareholders and not to him. Henceforward the position is changed. The benefits of economies enure under the new Act as to 20 per cent. to the Company, but as to 80 per cent. to its customers in reduction of the standard rates. The new companies, from their greater weight, their freedom from less responsible competition, and the fact that they possess statistics to prove their case, are in a very strong position to educate their public and to press forward and gradually enforce reforms. It is not only their duty but their interest to do so, for let it be once more repeated, it is only on condition that the business is conducted with efficiency and economy that Parliament has guaranteed that the pre-War dividend of the old companies shall continue to be enjoyed by their successors.

One point may be mentioned in conclusion. Parliament, not only by the Railways Act, 1921, but by the permanent sections of the Ministry of Transport Act, 1919, has imposed upon the Ministry of Transport a large number of important and highly technical functions. And as originally constituted the Ministry had not only an expert chief but an expert staff adequate to perform them. This staff has, on the grounds of economy, been reduced almost to vanishing point. The statutory duties of the Minister are being performed, pending the abolition of the Ministry, on which the Prime Minister has decided, by the First Commissioner of Works, who is not an expert and has no expert staff. Now the whole scheme of railway reconstruction, laid down by the two Acts of 1919 and 1921, is conditioned on expert supervision and guidance of immensely powerful companies by a Government Department. To save £100,000 a year at the price of official sterility in respect of a business which draws £200,000,000 in charges from the public hardly seems consistent with true economy.

W. M. Acworth

WHEAT, WHEAT FLOUR, AND BREAD COMPOSITE PRICES

In the ECONOMIC JOURNAL, Volume VI (1896), pp. 475–484, there is an interesting and valuable analysis of the relative prices of wheat and bread, based upon " the Association prices of six large towns where market prices are nearest to those of Mark Lane." The period covered is from March 1894 to March 1895. Of the conclusions, eighteen in all, drawn by the writer, J. Kirkland, two are cited herewith, namely: " That the relative prices of wheat and flour are more constant than those of flour and bread;" and " That the table of comparative prices here given does not show that there is any well-defined rule by which bread prices alter in sympathy with wheat, but it shows that wheat, flour and bread have a tendency to move together."

To what degree these deductions may be regarded to be correct is a complex question affected by so many factors that our positive knowledge of the subject becomes scanty and generally unsatisfactory. There is a mass of information available, but the methods employed in compilation, tabulation and general presentation are frequently not clear because of the omission of essential details regarding the schedules upon which data have been based. Significant bits of testimony, compiled in the United States, may interest the members of the Royal Economic Society.

My article has two purposes. Firstly, to record a general agreement with the earlier writer with respect to most of his findings. Secondly, to call attention to several considerations not previously cited, which strengthen the bases for his deductions and at the same time open wide the field for fresh research. On account of the tremendous questions involved, no endeavours are made by me herewith to develop the topics beyond certain suggestive boundaries. Any other procedure would result in an article of interminable length, or, by stressing particular phases, this correlated study would be thrown badly out of proportion. My aim is to set the stakes.

Many economists have in their discussions treated wheat,

wheat flour, and bread as a distinct entity. Through their neglect of recent changes in the processes of agriculture, industry and commerce, they have failed to study closely the various items entering into the demand schedule and into the supply schedule.

In America during the past decade numerous Government reports and private publications have presented in a more or less spectacular form significant cost and price aspects which are at once suggestive and valuable. Among the leading factors may be cited: (1) the necessity of commodity definitions, (2) the variety and relative importance of the different components entering into the expenses of production, (3) the relative importance of the different components entering into the expenses of selling, (4) the general nature of the demand, (5) the steadiness of consumption, (6) rival demands, (7) rival supplies, (8) by-products, (9) price schedules, (10) relative price movements.

Regarding definitions of what we mean when we speak of wheat, wheat flour, and bread, there has been no consistent "meeting of minds." Although this brief discussion is devoted to wheat and wheat products, taken by themselves the expressions wheat, wheat flour, or bread are meaningless for exact discussion. In the case of wheat we have hard wheat and soft wheat and many grades of each. As a rule each locality is known to produce a certain quality of this cereal. A study of prices and other factors illustrate the independent characteristics of the various types. An analysis of flour presents further difficulties, inasmuch as the composition of flour is based on a secret formula to which the trade name is applied. Broadly speaking, flours are classed as patent flours and standard flours, but the varieties are legion. It is noteworthy that American millers seem to be making far more use recently of certain types of Canadian wheat which are blended with one or more American qualities. Our failure to understand the exact proportion of each grade of wheat in the making of flour makes our deductions unsatisfactory. Turning to bread, flour is unquestionably the most important ingredient, yet yeast, salt and water are also necessary, and still other ingredients may be important. Sugar and milk are being used more than ever, partly because they assist the yeast to work more quickly and help to give the bread loaf a golden-brown crust. As in the case of flour, the commercial producer has his special formulas which must be made available if we are to know the real cost and relative merit of the output.

Therefore in studying production costs or expenses, a single

raw material or a partly finished material is not necessarily the determining element. In the case of wheat-growing, climatic and other factors beyond the control of men play such a large part in the risks that it is considered futile to attach much importance to establishing normal costs. The United States Department of Agriculture (*Year Book*, 1920, pp. 301–8) compiled cost figures based on records of 481 farms in the year 1919 (when all expenses were unusually high). The Department of Agriculture reported that the "average" net cost per bushel spring wheat was found to be \$2.65, but the range in net cost per bushel was from \$1.10 to \$14.40; of the foregoing 24·5 per cent. cost less than \$2.00 per bushel, 29·4 per cent. from \$2.00 to \$2.50 per bushel, 22·8 per cent. from \$2.50 to \$3.00 per bushel, and 22·3 per cent. at over \$3.00 per bushel. These results are interesting as examples of varied cost, yet from the standpoint of careful accounting practice they are little to be relied upon. In reporting these figures the Department of Agriculture announces that land rent constituted about one-fourth, labour one-third, materials one-sixth, and other expenses one-fourth of the total cost. Excluding land rent, the proportions become labour two-fifths, materials one-fourth, and other expenses approximately one-third of the total cost. Thus labour appears to be the chief element in cost of wheat-growing.

Analysing flour production costs, the earlier writer in the ECONOMIC JOURNAL is correct in his conclusion that the price of wheat determines largely the price of flour.[1] A Minneapolis miller testified at the National Agricultural Conference held in Washington, January 23–27, 1922 (proceedings published as a Government document, 67th Congress, 2nd Session): "Contrary to common opinion, the miller is not interested in the price, except that it is high enough to encourage the production of wheat. It matters little to the miller whether he pays \$3.00 a bushel for wheat or \$1.00 a bushel for wheat. He buys wheat and sells flour, and the price that he asks for the flour reflects the price that he pays for the wheat." Substantial evidence on this point appears in the *Report of the Federal Trade Commission on Commercial Wheat Flour Milling* (September 1920). From the following table it may be observed that the cost of wheat material is nearly identical with the actual net cost of flour per barrel, and in some cases is actually less, the reason being that the by-product, feed, is a substantial source of return.

[1] The real explanation is to be found in the widespread employment of "hedging" operations on the grain exchanges.

Analysis of the costs of the thirty-seven companies in making and selling a barrel of wheat flour, by years 1913–14 *to* 1917–18.

Item of Cost.	1913–14.	1914–15.	1915–16.	1916–17.	1917–18.
Wheat	$3·96	$5·42	$5·09	$8·32	$9·72
Packages	·27	·23	·24	·31	·47
Mill operating costs . .	·22	·22	·21	·28	·37
General and selling expense	·30	·33	·31	·42	·41
Total cost of flour and feed	4·75	6·20	5·85	9·33	10·97
Charged to production of feed	·76	·84	·77	1·26	1·29
Net cost of flour per barrel	3·99	5·36	5·08	8·07	9·68

In the combined making and selling of bread all ingredients have been estimated to amount to 40 to 60 per cent. of the selling price of the bread loaf. The Minnesota State Department of Agriculture (Bulletin No. 5, *Investigation of the Production, Distribution, and Prices of Bread*, St. Paul, January 28, 1920), basing their conclusions on the testimony of twenty-six bakery concerns, reported that with flour selling at approximately $11.00 per barrel and with a retail price of bread loaf at 10 c., various elements of cost were made up of material, 5 c.; labour, nearly 2 c.; manufacturing, delivery, administration and depreciation, 1½ to 2 c.; baker's profit one-third of a cent; and retail profit 1½ c. Therefore, total material cost, of which flour is one item, would appear to have an influence in the retail price which is less dominant than most writers assume to be the case.

The third factor, namely, the expenses of distribution, has been slighted by the majority of investigators. The voluminous report of the *Joint Commission of Agricultural Inquiry*, which appears in four parts devoted to the agricultural crisis and its causes, credit, transportation, and marketing and distribution (67th Congress, 1st Session, 1922), has reproduced a vast amount of valuable material. The statement is correctly made that in marketing food products (the situation is doubtless more true for non-food products except certain raw materials) the expenses of selling exceed generally the expenses of production. It is interesting to observe that in the case of a staple product (bread) the consumer's dollar is estimated to be applied approximately one-half to the processes of production and one-half to the processes of distribution subdivided as follows, covering the year 1921: production—wheat producer receives 28·1 c., transporta-

tion 2·6 c., elevator margin and profit 2·8 c., flour manufacture 0·6 c., transportation 4·4 c., cost of bread manufacture 12·3 c., total production 50·8 c.; distribution—manufacturer's cost of selling 16·4 c., overhead 8·5 c., profit 5·7 c., retail operating expense 15·7 c., profit 2·9 c., total distribution 49·2 c. Thus it appears that in the analysis of the amount paid by the consumer per dollar for bread the influence of the cost of material is far less important than in the making of flour from wheat.

There is one respect, however, in which conditions to-day do not seem to be similar to those twenty-six years ago. The notable non-manufacturing expenses of the baker, such as merchandising and delivery, possibly do not find direct expression in the retail price to-day. The United States Food Administration referred more than once to the logic of different prices depending on the utilisation of these independent factors, but the consumer has not been educated to looking behind the naming of a definite price.

Regarding the next feature, the nature of the demand, it is apparent that there are fundamental differences between the situation affecting wheat, wheat flour, and bread. Consider the number of industrial agents—surely of importance. In the United States there are estimated to be over 6,000,000 farms, millions of which produce a certain amount of wheat which in turn is sold largely to manufacturing millers, who number less than 15,000. The flour manufacturer is sometimes in the bakery business; but, generally speaking, his output is sold either to manufacturing bakers, to jobbers, or to large retailers who sell to the ultimate consumer. Bread in turn may be made in the bakery (there are about 25,000 commercial establishments) which supplies the householder, or it may be produced at home without calling in any industrial agent beyond the dealer in flour and other materials. In the making of bread, the private family becomes a competitor of the professional baker, a factor which is well recognised by the baker and the retailer. However, on account of the difficulty of securing domestic help, fuel costs and inconvenience, there is abundant evidence that American families are doing less and less baking at home. The United States Food Administration (*Policies and Plan of Operation*, Wheat, Flour and Bread, December 1, 1917) estimated that 40 per cent. of the nation's bread was baked commercially and the balance, 60 per cent., at home. As a result of a survey of foreign nationalities in New York City it has been recorded that 6 per cent. bake all their bread, 54 per cent. buy all their bread, and 40 per cent.

buy only part of their bread. All nationalities are said to buy over 50 per cent. of their requirements. The highest percentage, 79, was reported for Irish and Polish families. "The percentage of Americans using baker's bread differs only by 1 per cent. from the percentage of families of all nationalities in all the cities who use baker's bread, Americans buying 66 per cent.; other nationalities 65 per cent" (*The Journal of Home Economics*, Vol. X, pp. 561–3). An interesting study could be undertaken comparing the bread-making conditions in the United States and foreign countries in order to help explain why foreigners of the lowest standard of living do not undertake to bake bread at home.

All staple food products are regarded as largely subject to fairly steady consumption requirements, since the human stomach has a limited and somewhat well-defined capacity. This contention seems to be borne out by recent American experience, although the data are not conclusive. A Canadian, James Mavor (*Political Science Quarterly*, December 1911), has stated that wheat consumption actually and *per capita* is on the increase. There are, however, several well-informed investigators who take the position that the consumption of wheat is actually decreasing *per capita*, perhaps partly to be explained by the better utilisation and by articles of substitution. Marshall (*Industry and Trade*, p. 794) believes that, despite fluctuations, wheat prices are the "best single measure for the real purchasing power of money;" moreover, "the average value of grain in terms of human life has been fairly stationary over the centuries."

The United States Tariff Commission (*Tariff Information Series, No. 20, Agricultural Staples and the Tariff*, p. 50), using the figures for 1910-14, inclusive, states that export shipments of flour vary comparatively little, since flour "is sold under brand and the brand itself is in demand." Is this true to-day? The Federal Trade Commission (*op. cit.*, p. 14), comparing the yearly records, 1901–1918, inclusive, shows that the entire range of *per capita* consumption of flour in the United States was only from 0·95 barrels to 1·16 barrels. The *North Western Miller* (June 14, 1922) reports that a barrel of flour annually *per capita* is approximately correct, and also that "the theory that hard times increase the consumption of flour is verified." The latter statement is probably true, since during times of depression various wasteful habits are largely abandoned. While it is commonly asserted that there is an increased consumption of bread during hard times, the proofs seem to be somewhat inconclusive, on account of lack of reliable information.

The rival demands for wheat, wheat flour, and bread have been largely overlooked. In the report of the Federal Trade Commission already cited, the estimates regarding the consumption of wheat in the United States for the years 1913–14 to 1917–18, in millions of bushels, follow:

Crop Year.	Total consumption.	Fed to stock.	Used for seed.	Mill consumption.	Exported as flour.
1913–14 . . .	696	55	75	566	53·1
1914–15 . . .	654	20	84	550	72·5
1915–16 . . .	743	74	79	590	68·4
1916–17 . . .	632	13	82	537	53·0
1917–18 . . .	664	13	89	562	95·8

The utilisation of flour generally is restricted to edible purposes although not exclusively for bread-making. The biscuit or "cracker" (the American term) industry makes large demands. Furthermore, the Japanese in their demands for American flour specify whiteness and low price, since flour is used for non-baking purposes and the lower grades purchased may be as good or better for them than flour prepared directly for use in making bread. Obviously bread satisfies a direct demand and is highly perishable. But the problem of distributing stale bread, which is supposed to result from the output, in the year 1917, of 600,000 barrels of flour yearly, has been notoriously neglected. Stale bread is frequently thrown away, although its ingredients have not disappeared in the lapse of a day or more, and for many purposes stale bread has as many possibilities as fresh bread. Bakers apparently do not consider that stale bread is an important competitor of fresh bread.

From the standpoint of distribution, the principle of substitution is of far less importance than when applied to production, since the product has reached the advanced stage. Other cereals, notably corn and rye, have nutritive qualities in no sense inferior to those in wheat. During the World War, Herbert Hoover attributed the failure of Europe to utilise corn as a bread-stuff as due to ignorance of the making of corn bread, the inadequate equipment, the short life of corn meal, the absence of corn-milling establishments, and the difficulty of shipping corn in the germinating season. The superior value of wheat could be attributed largely to familiarity with its use, its durability, and its palatability. In the case of bread a patriotic movement resulted in the consumption of "war bread" in this country as well as

abroad. Almost needless to state, vegetables, fruit, meats and other articles of diet are in never-ending competition to satisfy the human fancy.[1]

Related to both the questions of competitive demands and competitive supplies we must recognise this continuous rivalry between various classes of food. For example, there is a pronounced rivalry between wheat and wheat flour as far as the European purchasers are concerned. In English newspapers there have been many citations of British millers who have opposed the importation of foreign-made flour.

There is no more interesting phase from the standpoint of both economic or foreign business practice than the significance of by-products. Marshall (*Principles*, seventh edition, p. 389), in discussing derived supply price, gives an excellent illustration of the importance of the price of straw as affecting the wheat consumption of England, concluding that the value of straw (not an imported article) is high in those countries which import wheat and low in those countries which export wheat. To take the instance of flour, there has been no adequate appreciation of the importance of the by-products of flour mills in the price and other commercial features of the local and the world flour trade. The largest American flour manufacturing company states, that in the various reductions, approximately 70 per cent. of the wheat is saved for food and the balance becomes bran and shorts. Important trade interests in many countries have given serious consideration to the advisability of dumping flour through the medium of charging high prices for by-products. The significance of by-products is apparent by referring to the figures of the Federal Trade Commission in this article dealing with the net cost of flour per barrel. The prices received for by-products constitute a considerable margin which might be used as a leverage for the naming of wheat prices. The agitations of British millers for an increased duty on flour imports have been due to proved ability of Australian interests to sell locally by-products for feed purposes at high prices, which enables them to lay down flour in

[1] Wheat is bought by such independent tests as colour, weight and protein value; the last-mentioned is now receiving much attention. Flour is bought by various standards. The "bread score card," devised by the American Institute of Baking, gives the following "weighting": *external appearance*, 30 (volume, 10; colour of crust, 8, symmetry of form, 3; evenness of bake, 3; characteristics of crust, 3; bread and shred, 3), and *internal appearance*, 70 (grain, 10; colour of crumb, 10; flavour, 15; taste, 20; texture, 15). It is stated that "the ideal taste is the same as the ideal flour." Thus, bread appears to be bought for appearance as well as for nutrition.

England at a level said to be under the actual English cost of production. The commercial feed business in the United States is tremendous, and has been estimated by the Federal Trade Commission (*Report on Commercial Feeds*, March 29, 1921) at one half-billion dollars annually. This industry shows every indication of increasing in its size and importance. Yet it must not be forgotten that there are many kinds of commercial feeds which enter the market and which compete on close margins. Most difficult is it to prophesy prices for cotton-seed meal, soy-bean cake, etc., since these products are merely one single output in huge integrated industries. In the study of by-products of bread-making, stale bread deserves special consideration. The whole subject of by-products for the cereal industry as a whole offers promising rewards to diligent investigators.

The price schedule is a separate subject of which only one or two superficial phases can be touched on here. Wheat and wheat flour enter world markets and are there clearly influenced, perhaps almost entirely so, by the naming of prices in one or two leading centres. As has been noted, the price of wheat is the most important factor in the price of wheat flour; yet at the same time wheat and wheat flour are market competitors. In the case of bread there is the curious situation that the retail price has been determined largely by custom. The baking interests in the United States are trying to do away with this automatic check on the price which the consumer is accustomed to pay. In order to keep in business the baker must receive for his product a price which will offer satisfactory returns for his enterprise. When component factors, such as the price of wheat, baker's help, delivery expense, etc., are too high for him to sell at a profit, different alternatives are open to him. He may, for example, use cheaper grades of wheat, do away with sugar or other non-essential ingredients, abandon home delivery, or reduce the weight of the loaf. In by far the majority of the cases it is customary for the weight or size of the loaf to be adjusted to the cost of the bread in such a way that the final selling price will not be altered. Practically all bakers have stated that it is their custom to reduce the size of the loaf when their expenses of production and distribution are high, and to increase the size of the loaf when these expenses decline sufficiently (see report *United States Food Administration,* Policies and Plan for Operation; Report *Minnesota State Department of Agriculture; Hearings regarding increased price of bread in the District of Columbia,* 66th Congress, 2nd Session, etc.). If we believe that the consumer

is fooled thereby, this method of adjusting the bread content to price is a questionable one.[1]

The recognition of this practice has found expression during 1921 in the passage by four states of laws prescribing regulations which establish minimum requirements for the public sale of bread.

In American experience there is nothing to substantiate the statement made by Kirkland, that "bread in port towns is, quality for quality, usually cheaper than in inland centres."[2] He explains this by transportation costs to interior or remote places levied on imported wheat or flour.

Relative price movements have been receiving and are receiving probably more attention than any other single phase of the whole problem underlying the demand and supply aspects of cereals and cereal products. Nothing which has come to the writer's knowledge so far tends to disprove the conclusions of Kirkland in the ECONOMIC JOURNAL sixteen years ago. In fact all evidence substantiates his findings. Further, a few graphs compiled by the writer indicate that labour wages in the milling and bakery establishments have somewhat similar curves to commodity prices. It must be admitted, however, that the dissimilar conditions underlying price equations for our wheat, wheat flour, and bread series make it difficult to furnish conclusive proof regarding explanations for price variations. It is to be hoped that students may consider various methods of weighting the various components in the making of costs and prices and to follow out their investigations accordingly. As an illustration, assuming that the retail price of bread is 10 c. and the cost of all

[1] The practice, common in the London bakery trade before the War, of selling two-pound loaves at 2 lb. 1 oz. or at 2 lb. 2 oz., and making up the deficiency by a small roll or by a piece of bread cut from another loaf, has not been followed in America.

[2] Although recognising that England has a constant deficiency in wheat and in wheat-flour production, it seems strange that the interior "cost of carriage" should exert such an influence with respect to other far larger expenses. Monthly bread prices for fifty-one leading American cities are available in the *Monthly Labor Review*, United States Department of Labour. Price per bread pound for May 15, 1922, places chosen at random, for six leading coast cities (Baltimore, Boston, New Orleans, New York, Seattle, San Francisco) averages 8·75 cents, and for six leading interior points (Birmingham, Chicago, Cincinnati, Denver, Minneapolis, Rochester) give an identical figure. The highest in the first group is Seattle, located in a wheat-growing region; the lowest is New Orleans, located in the cotton belt. The highest in the second group is Chicago, a domestic port located in the centre of the world's granary; the lowest is Denver, hundreds of miles away from the largest wheat-fields and flour-mills. It is well known that in the same city, under similar conditions, the retail price of commercially identical bread loaves may range from ten to fourteen cents.

ingredients entering the bread loaf is 5 c., a variance of 1 c. in these ingredients should receive no greater nor less weight than the variance of 1 c. in the other items equally important in the aggregate. The failure to recognise the striking significance of the non-material items has led many otherwise competent investigators astray.[1]

A leading authority is the United States Department of Labour, which publishes, through its Bureau of Labour Statistics, regular bulletins on commodity and labour prices. Among the leading periodic publications are *Wholesale Prices* ; *Retail Prices* ; *Union Scale of Wages and Hours of Labour* ; *Monthly Bulletin*. Publications of the Department of Agriculture, Department of Commerce, Federal Trade Commissions, and the Tariff Commission are also useful, especially the statistical *Survey of Current Business* published by the Department of Commerce. War-time prices are well handled in the publications of the War Industries Board : Mitchell, *International Price Comparisons* ; Garrett, *Government Control over Prices* ; Wildman, *Prices of Foods* ; Peltason, *Prices of Wheat and Wheat Products* ; Maxwell, *Prices of Feed and Forage* ; Mitchell, *History of Prices During the War*. Further studies of Mitchell appear in Bureau of Labour Statistics, Bulletin 284, *Index Numbers of Wholesale Prices in the United States and Foreign Countries*. The monthly *Industrial Bulletin*, issued by the Industrial Commissioner of New York State, Albany, gives monthly commodity and labour prices.

In conclusion, the writer is in substantial agreement with the earlier writer in the ECONOMIC JOURNAL. While my information is admittedly incomplete and from many points of view unsatisfactory, my findings are not much out of line with those earlier expressed.

A great deal of more or less valuable material can be obtained by reference to recent American publications. Attention is called especially to publications of the United States Departments of Agriculture and Commerce, and to the bulletins issued by the State agricultural departments, and by the land grant colleges. There is also scattered testimony contained in Government hearings before Congressional committees. Intensive studies dealing with food products, notably wheat and bread, are being undertaken by the Food Research Institute of Stanford University, whose directors have been prominent in University and

[1] See report of the *price of bread*, District of Columbia, for detailed figures, furnished by the leading local manufacturers, for all main expense items extending over sixty-five consecutive periods, 1914 to 1920, inclusive.

Government research work. Their access to the complete records of the Belgian Relief Commission during the War and to the records of the United States Food Administration, both files turned over by Herbert Hoover to his *alma mater*, provide excellent opportunities for first-hand information.

Apparently the difficult pioneer production and marketing studies which are being undertaken in America at the present time give a fair degree of assurance that these outstanding problems of applied economics will receive marked attention. The present stage in these investigations is, however, too early to cause us to be either unduly optimistic or pessimistic regarding the ultimate achievements. From the standpoint of exchange and consumption, source materials based on conditions in the United Kingdom would be extremely helpful.

ELIOT G. MEARS

Stanford University,
California.

THE INDIAN FISCAL COMMISSION, 1921–22

Report of the Indian Fiscal Commission, 1921–22. (Simla, Supt. Government Central Press. Pp. 239 + xvii. Price 6*s*. net.)

THE Indian Fiscal Commissioners would have been more than human if they had been quite unaffected by the very strong drift of events in recent years towards a policy of Protection to Indian manufactures. A few months before their appointment the British Government had accepted in principle the demand for Indian fiscal autonomy. The evidence laid before the Commission disclosed strong feeling in favour of Protection, a feeling which extended alike among those who might expect to gain and those who might expect to lose, and drew further strength from memories of the political activities of Lancashire. Finally, the fiscal alternatives before the Commissioners might not unreasonably be presented as a choice between the accidental and uncertain protective effect of a high general revenue tariff and that of a tariff deliberately designed to serve the ends both of Protection and revenue; for the extreme financial pressure in the years following 1916 had compelled the Indian Government to raise nearly one-third of its central revenue from a wider range and higher level of import and export duties, some of which were, and are, protective in effect if not in intention. Indeed the practically minded, having read so far, might be excused if they thought further reading a superfluity and turned at once to the Commissioners' recommendations. They might remember the precedent set by a certain High Personage on his approach to a town which failed to mark his arrival with the customary salute. On being assured by its Governors that they were prepared to lay before him one hundred convincing excuses for their omission, the first being their complete lack of guns, he was good enough to express his entire willingness to forgo the remaining ninety-nine.

However, the Commissioners' argument is by no means one to be lightly passed over. Refusing to use in its support the strong trend of Indian sentiment, they rest their case, supported by quotations from J. S. Mill and Prof. Pigou, upon the opportunities for the development of the latent productive powers of

India; and present a reasoned argument which bears every indication of an impartial, well-considered examination of the effects of the adoption of their proposals on the well-being of India. No attempt is made to reason away the burden which their policy will lay, temporarily at least, on the consumer. The hired agricultural labourer, it is argued, will not be injured; the main loss will be borne by the professional, clerical and petty trading classes and the independent cultivator of the land; but there is no discussion of the possibility that the independent cultivator may be able gradually to shift his burden on to the Government by way of lower payments to the central land revenues. Further, the Commissioners give no encouragement to the claim that the newly-developed industries will form a compensatory source of employment in periods of famine; on the contrary, they point out that hand-loom weavers are among the first to suffer at such times. Moreover, they admit that, by reason of the greater need for such public services as education and sanitation, the costs of administration will rise as the population passes from the country into the industrial centres—a hint, it may be supposed, that much remains to be done in improving town conditions before the agricultural workers are persuaded to leave their villages in adequate numbers. Only when the Commissioners discuss the possibility of political corruption do they seem to understate the difficulties incidental to their policy. They claim that under the recent system of high revenue duties there has been no trace of such influences; and that a safeguard is provided in the variety of interests represented in the Legislature, in particular the strong representation of agricultural and landed interests. Yet it is well known that in other countries, railway commissioners granted the largest possible measure of independence have been unable to develop the system under their control in any very close accordance with strictly economic considerations.

But these are not the principal issues. The Commissioners' main argument is that India has yet-unexploited natural advantages for industry. They claim that she has adequate sources of power, abundant raw materials, an excessive supply of unskilled labour on the land, and potential sources of capital; that these are good evidence of her latent powers of industrial growth; and that temporary encouragement by the State will lead to an expansion of her manufacturing powers, accompanied by an intellectual stimulus and a wider outlet for diversity of talents. Whether these "natural advantages" really constitute

good *prima facie* evidence of latent industrial powers is a matter to be touched on later.

The manner in which such State assistance should be given has been carefully considered. There is to be created a permanent, advisory Tariff Board of not less than three, highly paid, members who are to be selected, not as representatives of areas or interests, but for their possession of high personal qualifications. It will be the duty of this Board to investigate the business prospects of existing and potential industries and to recommend the grant of State assistance only if three conditions are fulfilled. These conditions are severe. The Board must be satisfied that the industry under inquiry has natural advantages; that it is in need of help for its proper development; and that it will eventually be able to face the world's competition unaided.

The particular form of State assistance to be recommended will vary with the circumstances of each case. A considered, yet apparently faulty, argument on the nature of export duties leads the Commissioners to rule out their use for purposes other than revenue. Ordinarily, therefore, the assistance is to be given by import duties adjusted as closely as possible to the necessities of each manufacturing group. But when a selected industry is not yet in existence, so that any estimate of its business prospects is highly conjectural; or when an industry cannot be expected ever to supply more than a small fraction of the home demand, so that an import duty would be extravagant; protection may, it is argued, be more suitably given in the form of a bounty. A similar method is to be employed in those awkward cases where a duty on imported machinery, steel, or other basic products might compel the grant to finishing industries of a measure of protection otherwise unnecessary. The Honourable Lala Harkishen Lal is to be thanked for the summary: "Nurse the baby, protect the child and free the adult."

The capacity and courage required to select those and only those native industries which can show an economic title to assistance and to assign to each its appropriate and only its appropriate measure of assistance calls for a Tariff Board of rare quality. But when their recommendations on these matters are formulated and accepted their work is still only half done. They must then face an even more difficult and invidious task: that of urging the withdrawal of this assistance as it becomes no longer necessary. Realising the difficulties which will be met, the Commissioners nevertheless reject the proposal that

the bounty or duty should be enacted for a fixed period; for they recognise that the rate of expansion of any industry cannot be foreseen and that the necessary period of Protection may extend to thirty years or more. Accordingly they propose that the Tariff Board should watch each selected industry during its infancy, urging the withdrawal of assistance if it shows no prospect of success, pressing for the modification of duties where this may be desirable, and for their abolition when an industry has reached full competitive efficiency. This then is the Commissioners' scheme; temperate and reasoned; its main theoretical argument unassailable; but its administration calling for a Tariff Board, a Legislature and Government of a quality of which the world seems yet to have had little experience.

But to admit the orthodoxy of the Commissioners' theory is not to accept unquestioned the fundamental assumption on which it rests: the assumption that the natural advantages they enumerate form strong *prima facie* evidence of latent manufacturing capacity. Before taking up that point, however, it may be as well to consider briefly a more general aspect of the situation which suggests that, quite apart from the Commissioners' argument for "nursing the baby and protecting the child," the case for Protection in India is rather stronger than at first appears.

Let the objections to the adoption of a protective policy in an industrially advanced country be put in this form: during the period of readjustment which follows the imposition of a protective tariff, the increased profitableness of business in the industries favoured by it may lead to a temporary increase in the total quantity of resources employed within the country; but the reduced profitableness of business in other industries not so favoured will lead gradually to a contraction in their productive power at least equally great; so that in the long run the imposition of such impediments to trade must almost inevitably reduce the attractiveness of the protected area to resources in general and thereby diminish the total quantity of resources employed within it. Now consider an alternative case. Suppose that a protective tariff is introduced in another country the disposition of whose resources is largely governed by non-economic influences. Then may it not be that the reduced profitableness of the injured trades will not lead to any considerable diversion of their resources into the industries favoured by the tariff? And is it not possible that the increased profitableness of business in these protected industries will

draw in resources from abroad and so result, not in a temporary, but in a permanent, increase in the aggregate resources employed within the protected area? It seems probable that some such result would follow in India, where for each worker in industry proper there are nearly one hundred on the land. The reasons for so thinking are these. According to the Commissioners, the sentiment in favour of investment in land is so firmly established in India that the application of their protective policy is unlikely to reduce its volume; and again, on the same authority, the attachment of the labourer to the soil and his dislike of sustained industrial work has hitherto been so strong that the land bears a large surplus of workers in excess of what is required for its thorough cultivation. On these and other grounds the Commissioners rest their belief that the effect of their proposals will be to weaken the traditional sentiment of land-workers, though not of investors, and so gradually enable numbers to be drawn into the newly developing industries without appreciably reducing the agricultural output. Admitting that this claim a little outruns the realities of the situation, it still seems likely that it is substantially true. And in the degree that it is true it would seem that the application of a protective policy to India would permanently increase the attractiveness of her area to foreign capital, skilled labour and business men, and so permanently increase the quantity of resources employed within her area. It may be that the exploitation in this way of the special non-economic conditions prevailing in India would not fully set off the purely economic loss resulting from other effects accompanying the application of a protective policy; and it is perhaps even less likely to set off the injurious social consequences which may result from an arbitrary redistribution of wealth and the diversion of large numbers of labourers from their villages into the present conditions of industrial centres. But so far as it goes the argument tells in favour of a policy of Protection.

When these special considerations are joined to the Commissioners' proposals for a discriminating policy of developing potential industries, the economic case for a protective tariff begins to grow formidable. But it may be doubted whether the natural advantages for industrial development claimed by the Commissioners—the possession of power, raw materials and so on—form so good a *prima facie* case for Protection as at first appears. Is it not essential to their argument that these "natural advantages" should include adequate supplies of organising ability, actual or potential? And are these supplies

in sight? On this subject the Commissioners are silent, or nearly so. They refer indeed to India's former pre-eminence in highly skilled industry; but, reasonably enough, they refrain from any explicit inference that she will therefore be able to produce large numbers of business men of initiative and energy comparable to those of her foreign competitors. They recommend, too, that the grant of Government contracts should be accompanied by the condition that provision should be made in the contractor's works for the training of Indian apprentices; but here they seem to have in mind the training not of business men but of skilled artisans. This deficiency in the "natural advantages" which form the *prima facie* case for discriminating Protection may possibly be filled by business men from outside sources. Such a remedy would, naturally enough, be out of accord with Indian sentiment. Nevertheless the Commissioners are to some extent relying on it; they reject the more sweeping proposals laid before them for restricting the new industries to native resources. The farthest they go in this direction is to recommend that the Indian Government should grant monopolies or concessions only to "companies incorporated and registered in India with rupee capital, such companies to have a reasonable proportion of Indian Directors, and to afford facilities for training Indian apprentices."

It is impossible to examine here the paragraphs in which the Commissioners discuss the relations of the revenue and the protective tariff, the industrial bias to be given to primary education, the Indian cotton excise, the technical advantages of "tariff valuation" as against specific and *ad valorem* duties, and many other matters of interest but of secondary importance. Something, however, should be said of their views on Imperial Preference.

They treat this many-sided question with the same temperate judgment which marks the whole of their report. But the economic argument here, as in the discussion of export duties, seems imperfect. A single instance will serve. Examining the advantage to India of the preferential duty on tea granted by the United Kingdom, and having in mind the fact that India and Ceylon provide 90 per cent. of the supply, they write: "It may be assumed in accordance with the general economic principles which we have stated above that the price to the British consumer will be regulated by the preferential, and not by the general, rate of duty," so that "the preference on Indian tea is only of indirect advantage to the Indian tea producers

by way of a possible extension of their market . . . it does not operate to increase their profits per pound of tea sold." Yet if the tea industry had been situated in the United Kingdom and an import duty equivalent to the preference had been imposed on foreign supplies, it would surely be agreed that the home producers would derive a direct money advantage as well as a possible extension of their market. And the two cases seem in essentials to be identical. This doctrine of the Commissioners, that if the country receiving preference supplies only a small part of the imports, its producers will get the old price plus the preference, and that if it supplies a large part of the imports its producers will get only the old price, seems to be too inflexible; it expresses two limiting cases; whereas the actual case they discuss would seem to be an intermediate one. This point of economic theory need not have been touched on critically, if it had not infected in some degree their general view of Imperial Preference.

Their evidence, they say, disclosed an antagonism which was almost unanimous. This opposition was based partly on the belief that the adoption of a preferential policy would prejudice India's fiscal autonomy, a belief which the Commissioners regard as ill-founded; partly on a fear that its adoption might weaken the protection of India's industry, a danger against which they make provision; and partly on a feeling that so poor a country as India should not be expected to tax herself to benefit so rich a country as the United Kingdom, a very reasonable contention which the Commissioners on the whole endorse. Having reviewed the opinion of their witnesses they pass on to consider to what extent India's foreign trade lends itself to the support of a more developed policy of Imperial Preference. The conclusion they reach is that she has little to gain and little to give. This for two reasons: the one that her exports of food-stuffs and raw materials are not likely to benefit much from tariff modifications, for their marketing is not greatly hampered, as is the marketing of manufactures, by heavy import duties; the other that she could not give preferential treatment of any great value except at a serious cost to herself. However, the Commissioners refuse to judge the question merely as a matter of profit and loss. They recognise an Imperial aspect and would not have India standing within the Empire in a position of moral isolation. A free gift from India, however small, would, they believe, be welcomed by the United Kingdom as a gesture of friendship and a proof that India recognised her

position as a member of the Empire. This is the Commissioners' attitude towards the United Kingdom. It is summed up in their reaffirmation of the opinion that no preference should inflict any appreciable net loss on India or weaken the protection afforded to her industries; their desire that India shall do what she can; and their recommendation that action should begin with an inquiry by the Tariff Board and the submission of their findings to the Indian Legislature, without whose approval no preference should be granted. The policy they propose that India should adopt in her relations with other parts of the Empire is a different one; it should take the form of entering into agreements for mutual concessions based on the prospect of mutual trading advantages.

Given that India's future tariff policy is predetermined by her fiscal autonomy and the heavy pressure of native opinion in favour of Protection, and adding that her special circumstances lessen its economic disadvantages, it may be urged that the Tariff Commissioners have dealt with their subject in the manner which will best serve the interests of India. When the drift of events is so strong, it may be more useful to guide than to oppose it. The Commissioners rest their case on India's latent capacity for industrial growth. That case would have been stronger had it been shown that India's "natural advantages" included the possession not only of the materials of industry, but also the business men willing and able to organise it. Further, it may be doubted whether any modern political and administrative machinery would be fully capable of carrying out the proposals detailed in the report. But if India has already settled the general character of her future fiscal policy, these objections are hardly relevant. The Commissioners have done all that is possible. They have shown clearly the difficulties in the way and have laid down the lines on which a protective policy must be developed if it is to have any reasonable chance of increasing the prosperity of India.

A dissenting minute is signed by the President and four other members. To Western minds it must inevitably seem curious in form and argument, and singularly unconvincing. It carries the discussion into a new and different atmosphere. Its strength is drawn from different sources. A feeling of what ought to be, and therefore must be, takes the place of dispassionate consideration of what is likely to be. "The Indian people expect by means of protection and whole-hearted co-operation of the State to reach a commanding position in the industrial world

within a reasonably short period of time. They will not be satisfied by a policy which is likely to make them concentrate their efforts for many years to come on the manufacture of simpler forms of goods." "A policy which is likely only to lead to this result for many years to come is not and cannot be acceptable to the people of India." There should be an unqualified pronouncement that the fiscal policy best suited to India is Protection; its application should be regulated not on the lines of the report, but "by such discrimination as may be considered necessary by the Government of India and the Indian Legislature." Nevertheless the Tariff Board should be retained, two of its members to be elected by the non-official members of the Indian Legislature. The signatories of the minute regret that their colleagues "should have thought fit to depreciate the capacity of Indians in the matter of industrial enterprise." In order that industrialisation should proceed very rapidly they "are prepared to accept the advent of foreign capital to accelerate the pace"; but only on the condition that foreign enterprise in Indian industries should be subject to the conditions imposed by the report on the parties to whom the Government may grant monopolies and concessions. Finally, their view is that India should not accept the principle of Imperial Preference until she has attained responsible Government and is able to regulate her fiscal policy by the vote of a wholly elected Legislature; and no trade agreement should be entered into with any Dominion unless it agrees to treat the Indian people on a footing of equality and to repeal all anti-Asiatic legislation which affects them.

This minute leaves the reasoning of the report almost untouched; and indeed its own reasoning is open to considerable criticism. But such criticism would in the main be beside the mark. For it would be of little use to attempt to estimate the logical force of what in its essence is not a piece of reasoning but a confession of faith.

F. LAVINGTON

PROFESSOR JEVONS ON THE INDIAN EXCHANGE

The Future of Exchange and the Indian Currency. By PROFESSOR H. STANLEY JEVONS. (Oxford University Press, Indian Branch. 1922. Pp. xii+264+4. 18*s*. 6*d*. net.)

THIS book is most stimulating to thought, and contains within a small compass the chief data on which to form a judgment. Professor Jevons has inherited his father's gift of never writing a dull line. I recommend it to everyone who is interested in this perennially interesting question—subject only to the proviso that the price of the book in relation to its length is outrageously high.[1]

Professor Jevons admits, somewhere in the course of the book, that he was gradually thinking out his conclusions while he wrote, and had not arrived clearly in his own mind at the conclusions of the last chapter when he began the first one, with the inevitable result that the broad outline of his argument does not stand out as plainly as it might. But the stages of his main argument are as follows :—

(1) He accepts the view that the rate of exchange of the rupee with sterling will be determined by the ratio of the Indian rupee price level to the British sterling price level. Everything depends, therefore, upon what is going to happen to these two price levels respectively.

(2) The Indian price level will depend on the currency policy of the Government. For all practical purposes it is now on the basis of inconvertible paper, so that internal prices are not automatically adjusted to outside prices. Under the policy existing at present the volume of currency in India cannot fluctuate very much. The Government is not melting rupees or selling gold, or paying off at most more than a relatively small amount of the securities in the paper currency reserve. Unless, therefore, the Government changes its policy on one or other of these heads, the volume of currency cannot fall very much. On the other hand, the Government is not coining more rupees at present, and is not adding to the securities in the paper currency

[1] So high as to reflect discredit, *primâ facie*, on the justly celebrated house which publishes it.

reserve. So long as these conditions obtain, it is equally the case that the currency cannot increase very much. The Government is too high-minded to inflate and too impoverished to deflate, a happy combination of inhibitions which tends to keep prices steady. Not that prices must therefore remain absolutely steady; they can suffer a certain amount of fluctuation for reasons not arising out of monetary policy. For example, a certain number of rupees disappear from circulation every year. A good harvest might put prices down, for obvious reasons, and there are other minor influences. Nevertheless, the broad conclusion holds that if the Government goes on as at present prices are not likely to move sensationally. Only if the Government deliberately deflates by one or other of the methods open to it, will prices fall; and only if it inflates, will they rise.

(3) What about sterling prices? On this head Professor Jevons comes to two conclusions. He thinks that the trade cycle will cause a certain increase of sterling prices in the near future, but that this will not last very long or go very far, and that a big rise for trade cycle reasons is not due for some years yet. On the other hand, he thinks that the long period trend of world prices, as distinct from cyclical movements, is likely to be, on the whole, downwards during the next generation. He gives some reasons for this, but also nearly as many on the other side.

(4) Is there any factor tending to disturb the relation between internal prices and external prices as measured by the level of exchange hitherto? Professor Jevons thinks that the effect of the new and prospective import tariffs may be to raise internal prices relatively to external prices somewhat, perhaps 15 per cent., in the absence of any movement in the level of exchange; or alternatively, if internal and external prices both remain at their present level, to raise exchange by say 15 per cent.

Accordingly he sums up with the opinion that, unless the Indian Government do something to stabilise the exchange, the tendency of sterling prices to fall will, in the absence of any deflation in India itself, tend to drag down the exchange. He does not, however, look for this quite immediately, first because of the temporary upward movement of sterling prices which he foresees in the near future, and partly because the new tariff will have an initial influence in the opposite direction.

Assuming the correctness of this argument, what ought the Government of India to do? Professor Jevons sees no advantage in leaving matters alone, which would result, in his

judgment, in a slow sagging of the exchange. On the other hand, he thinks that it would be perfectly feasible for the Government, with its present resources available for purposes of deflation, to carry through with success the very moderate deflation which might be required to stabilise the rupee at 1*s*. 4*d*.; because, although he expects a fall of world prices, he does not expect this to be so severe as to require heavy deflation in India. On the other hand, he is opposed to any attempt to raise the rupee up to the 2*s*. level, on the ground that the deflation required in India to effect this, since it would have to be sufficient both to counteract falling external prices and to raise the exchange, would involve a disastrous interference with the business life of India.

Therefore let the rupee be stabilised forthwith at 1*s*. 4*d*., and let the Government of India dismiss from their minds the bogey, which mainly influenced the Currency Committee of 1919, of silver rising in price so much that the bullion value of the rupee would exceed its currency value.

This is a powerful argument, which takes account of the main factors of the case, and proceeds, in my opinion, in accordance with a sound schematism.

Nevertheless, I have two important reservations to make, and do not altogether endorse Professor Jevons' conclusions.

In the first place, I do not accept his conclusion that the trend of sterling prices is likely to be downwards. This is too long an argument to enter upon here. But I believe that the general tendencies towards a rise of prices, the existence of which Professor Jevons admits, are likely to overbalance causes operating in the other direction. In any case, prophecy is almost impossible, because many unknown factors will come into play; but if I had to guess, I should make the opposite guess to Professor Jevons, and should say that prices are more likely to rise than to fall. In addition, I think he under-estimates the rise of prices which is likely to come about during the impending trade revival, if he is right, as I think he is, that such a revival is due to take place. The price level reached during the depth of the depression was so much below what was really justified by world currency conditions that a substantial rebound may easily occur.

If I am right about this, exchange, if it is left to itself under present conditions, is likely to tend gradually upwards rather than downwards as Professor Jevons predicts. How far it will go up, whether to 1*s*. 5*d*., to 1*s*. 6*d*., or a good deal higher, it is impossible to say, but I should expect the trend to be in that direction rather than towards 1*s*. 3*d*. or 1*s*. 2*d*.

My other point is of a different kind. I think that Professor Jevons over-estimates the advantages of stability in exchange as against stability in internal price level in the case of such a country as India. Indeed, it is not obvious anywhere in the course of his book that he is clearly aware of the important antithesis between these two aims, although the latter aim much influenced the recommendations of the Indian Currency Committee of 1919. As he points out, the price level in India has remained during the recent sensational years very much steadier than anywhere else in the world. He shows on page 212, that if we consider the fall in prices from the highest monthly figure in 1920 to June 1921 the drop was in England 41 per cent., in the United States 47 per cent. and in India 12 per cent. But he does not draw the conclusion that the much-abused exchange policy actually pursued deserves a large part of the credit for this phenomenon. By allowing exchange to rise somewhat precipitately during the time when sterling prices were rising furiously, India was spared the extremity of rise which took place elsewhere; and by allowing exchange to fall during the acute period of the depression from April 1920 to April 1921 India was also spared the full fury of the collapse of prices. If the rupee exchange against sterling had been stabilised through the whole of the last three years at any level you choose to mention, India would presumably have felt the full fury of the price fluctuation in Great Britain. Stability in the internal price level is so superlatively desirable in such a country as India, that the fact of her having got through the recent cycle with so small a fluctuation of internal prices is a great deal to be set against the inconvenience to merchants engaged in foreign trade from the fluctuations in exchange.

The most just criticism of the Government of India's action, in the light of after-events, is that, from every point of view, they were overdoing it in attempting to raise the rupee so high as 2*s*. 8*d*.—a rate not contemplated by the Currency Committee. Prices outside India never rose so high as to justify a higher exchange than 2*s*. 3*d*. on the criterion of keeping Indian prices stable at the 1919 level.

The following table of approximate values, which I have compiled, exhibits: first, the remarkable stability of Indian prices during 1919-20; second, the hopelessness of the attempt to maintain the rupee at the highest 1920 figure, namely 2*s*. 8*d*., unless the Government were prepared to deflate internal prices some 20 per cent.; and third, the accuracy with which the purchasing power parity theory has worked, apart from the

temporary and unsuccessful aberration of the 2*s*. 8*d*. rupee for a brief period in 1920, as between India and England, indicating considerable stability in the real ratio of exchange between the two countries.

	Indian Prices.	English Prices.[1]	Value of Rupee in Sterling.	
			Purchasing Power Parity.	Actual Exchange.
Average, 1919 .	100	100	100	100
Highest, 1920. .	112	129	115	152
Lowest, 1921 . .	95	65	69	72
Average, 1922[2] .	90	64	71	74

In the light of this experience I should be disposed, at the present juncture, to aim at sparing India some part of the rise in prices which is likely to occur in England by leaving matters as they are a bit longer, and letting movements outside India pull the exchange just as they like, in the hope that internal rupee prices would tend in that case to maintain their present relative stability. When the English index number had risen say to 200 or a little above as compared with 1913, then I might be inclined to stabilise the exchange, for the time being, without giving pledges for the future, at whatever level it had attained of its own motion by that time. For I fully accept Professor Jevons' arguments as to the feasibility of fixing exchange, within reason, at whatever level the Government of India think fit; and I also accept his view as to the general presumption in favour of fixing exchange more or less where you find it at the moment of stabilisation, rather than of trying to force it to some fancy figure.

I have not elaborated the arguments against Professor Jevons' view as to the future of world prices; but the passages which he interpolates about the harvest cycle and its effect on the trade cycle are no longer quite up to date, and are somewhat crude, having regard to recent more elaborate developments of credit cycle theories in general.

Since the publication of Professor Jevons' book, the rupee has moved moderately but appreciably upwards, until, as I write, it stands above 1*s*. 4*d*. Meanwhile the Indian authorities have modified their policy to the extent of recommencing the

[1] Statist. [2] First 10 months.

sale of Council Bills by tender. This has retarded but not prevented the rising tendency and appears to be due to the usual desire on the part of the India Office to strengthen its sterling balances (although it appears from Professor Jevons' figures that replenishment can hardly, as yet, be essential), rather than to any definite decision about future policy. Moderate sales of Councils in accordance with cash requirements would be quite compatible with the general policy I suggest above. Sir Basil Blackett, the new Finance Member of the Viceroy's Council, has gone to a problem not quite so thrilling as some of those he has left behind him, but of purer *intellectual* quality perhaps.

J. M. KEYNES

PANTALEONI FASCIST

Bolcevismo Italiano. By MAFFEO PANTALEONI. (Bari: Laterza. 1922. Pp. xlviii + 277.)

Cooperativismo Rosso, Piovra dello Stato. By GIOVANNI PREZIOSI, with an introduction by MAFFEO PANTALEONI. (Bari: Laterza. 1922. Pp. 322.)

La Borghesia fra due Rivoluzioni. By FILIPPO CARLI. (Bologna: Zanichelli. 1922. Pp. 281.)

THE economic effects of the political triumph of Fascismo in Italy have not yet been fully revealed. Professor Pantaleoni's book, however, throws some light on its economic objectives, and also on its political mentality. This book is a far cry from those writings on the theory of the incidence of taxation and on "pure economics" which securely established their author's reputation in the 'eighties. It is, indeed, a polemical tract, more akin to Adam Smith's *Wealth of Nations* and, in another sense, to Marx's *Capital*, than to the coldly unpolitical and polite economics of many later professors. It is directed, with brilliancy and venom, against "Bolshevism" in Italy, and demands that all steps recently taken by the State to limit the freedom of private enterprise and the determination of prices by unregulated competition shall be immediately retraced. Professor Pantaleoni has already persuaded Signor Mussolini to repeal the Italian Rent Restrictions Act. He advocates also the transfer from public authorities to private enterprise of railways, shipping and harbours (pp. 50-51), and likewise of posts, telegraphs and telephones.

"Bolshevism," which he characterises as "a decomposing corpse" (p. iii), is interpreted broadly, so as to include the activities of co-operative societies (pp. v and 170), their exemption from taxation (pp. xiii-xiv), proposals for breaking up the *Latifundia* (p. xli), high wages for State employees (p. xxiii), the fixing by the State of maximum prices of commodities (p. 27), the building of houses by local authorities (p. xxxiv), the requirement by the Milan City Council that all their employees should be trade unionists (p. xxxix), and the provision by the latter body

of free shaves for the City fire brigade (p. xxxviii). Mr. Sidney Webb is a "Bolshevik Solomon," with a "Pantagruelian smile" and "a wink for his Bolshevik comrades, when he speaks of equity, justice, pity and generosity towards the expropriated" (pp. xlv–xlvii). The Jews, also, are allied with Bolshevism against the spirit of nationalism. "W. Wilson, a type of Pecksniff who has now disappeared amid universal execration" (p. 115), was at the Peace Conference "in the hands of international Jewish finance. The Conference had as its secretary and interpreter Mantoux. Lloyd George was in the hands of Sassoon and the Isaacs gang. Clemenceau in those of Mandel Rothschild" (p. 179). The League of Nations is "a new instrument for hindering private enterprise, freedom of contract and the free international movement of capital and labour. It acts by means of governments, to the damage of private citizens" (pp. 51–2). It acts thus "under the partial but powerful influence of Jewish internationalism" (pp. 66–7). Evidently the world is full of snares for the unwary.

Among the effects of Bolshevism so far realised in Italy are the "artificial deformation" of the Pareto curve of normal distribution of incomes (pp. xvi and 58) and the increase of public drunkenness "among men and women of the working class in all the great cities, where the large increase in wages has not been accompanied by increasing refinement, since the workmen and their wives live like pigs in their houses and waste a great part of their wages on wine" (p. xiv). This is quite natural, for "to me it appears obvious that the classes with the smaller incomes are markedly deficient in good qualities, and that this deficiency is, in fact, the cause of their smaller incomes" (p. 36).

Professor Pantaleoni ridicules the alleged educative effects on the workmen of any measure of "workers' control," which proposes to "turn business enterprises into kindergartens, and to create relations of harmony and sentimentality between the despoiled (the industrialists) and the despoilers (the workmen stirred up by agitators)." This is only "a Bolshevik assault under cover of law" (p. 89). He is a passionate believer in the efficiency of capitalism, with its natural selection of industrial leaders (pp. 126–7), (except apparently when these happen to be Jews), in the virtues of the "middle class, open to all the winds of competition," and in their superiority to the "common people" (p. 109).

Free competition is his remedy for all our economic discontents, and Fascismo the political means to this end in Italy.

"The Fascisti are the youth of the middle class. They labour, not to fill their stomachs, but for an ideal. They seek no loot, but desire the greatness of their country" (p. 216). Peaceful methods are not essential. "In my opinion," he writes, "we *should rule out no means of crushing the Socialist movement*, even if such means are called by the Socialists civil war, *military* dictatorship or middle-class reaction" (p. 3). And elsewhere, referring to the vogue of Marxian doctrines at Fiume, where he acted as D'Annunzio's Minister of Finance and had difficulties with the workmen in the State tobacco factory, who claimed "the whole product of their labour" and thus threatened to wipe out his chief source of revenue, he asks, "in the last resort, how can one deal with a doctrine devoid of logical foundation except by means of the Fascist stick? The stick applied to the leaders soon cures their followers" (p. xxxi).

Professor Pantaleoni has written a most entertaining book. It may signify much or little that he has had occasional doubts as to the soundness of Signor Mussolini (Chap. X).

Dr. Preziosi's book is highly praised by Professor Pantaleoni in his introduction. It is a vigorous attack on the Italian Co-operative Movement, and mainly consists of articles reprinted from the *Giornale d'Italia*. Dr. Preziosi makes a great variety of accusations. He asserts that many prominent Italian co-operators are members of the Socialist Party, that some of them simultaneously hold official positions in Co-operative Societies and directorships in Joint Stock Companies, that many co-operators who were opposed to the war made money by supplying military uniforms, that some Co-operative Societies act merely as profiteering middlemen, that many are incompetently and even dishonestly managed, that some are controlled by Jewish Free-masons, that none are adequately taxed, and that the Co-operative Movement has been heavily subsidised out of public funds both during and since the war. In particular, under this last head, he complains of the fact that the National Co-operative Society, which was formed to collect and sell the miscellaneous war stores left scattered about the battlefields, was granted the right of free transport of its treasure trove over the State railways to certain specified destinations. Without a fuller knowledge of both sides of the controversy than Dr. Preziosi's book affords, it is impossible to judge how far his various accusations are true. Some of them, even if true, have little or no economic importance. On certain points—business efficiency, for instance, or probity of management, or extent of State assistance

—it would be interesting to compare Co-operative Societies with ordinary business enterprises performing similar functions. But Dr. Preziosi specialises in the sins of co-operators. In 1921 it was proposed by certain Fascist and Nationalist deputies in the Italian Chamber that a Parliamentary inquiry should be held into the extent of public subsidies to Co-operative Societies, the principles and methods adopted in giving such subsidies, and the working of the Institute for Co-operative Credit. The Socialist Party declared its willingness to support such an inquiry, provided that its scope was extended so as to include also the question of public subsidies to private enterprises. Dr. Preziosi's comment is as follows: "When a Party, which poses as the guardian of probity, is driven to such subterfuges as soon as it is caught with its hand in the money-bag, that party is already condemned" (p. 200). A writer with such a gift for condemnation should permit himself to range over a wider field.

"I am not writing a history," says Dr. Carli, "I am only pointing out certain milestones." Judged by this standard, he has written a useful book, containing a clear though elementary account of the more important developments, both political and economic, in the leading European countries during the period between the French Revolution and the second Russian Revolution of 1917. He sees in the middle class, "*la borghesia*," the artificers of all the notable achievements of this epoch, political democracy, the growth of industry, of transport systems, of great cities, of public hygiene, of the press. All these achievements he praises, not without occasional qualifications. He considers that to-day "the social position of the middle class is virtually stronger than it was before the war," and that the hope of the future lies in the "revivifying of middle-class liberalism" by the addition of a "spiritual element." Italians, he says, are seeking for this element either in Fascismo or in D'Annunzio. But Dr. Carli does not distinguish very clearly between the various sections, with frequently discordant interests, which go to make up "the middle class" as he defines it—the business community, the recipients of fixed money incomes, and "the new rural middle class" of peasant proprietors, which has emerged from the agrarian revolutions of Eastern Europe.

HUGH DALTON

RATHENAU IDEALIST

In Days to Come. By WALTER RATHENAU. Translated from the German by EDEN and CEDAR PAUL. (London: Allen and Unwin. 1921. Pp. 286.)

THIS is a translation of the German book entitled *Von Kommenden Dingen*, which was written some years ago. The work has not lost by being kept. For it refers but slightly to passing events, being mainly occupied with higher themes, such as Carlyle would have included among the "eternities." The translation allows the author's thought to be perceived as through a transparent medium. As a collateral aid towards the interpretation of the thought we take the liberty of mentioning a pamphlet printed for private circulation, the *Ideal People's State*, by Wentworth Price, purporting to be an abridgment and paraphrase of the work before us. The abridgment, which is to be found in the Library of the British Museum, seems better adapted to the taste of English readers than the faithful translation of the original German, however well executed. For the author's style is that of a preacher or prophet who multiplies denunciations of the present generation and visions of future beatitude, with profuse phraseology not fitted into an exact order of topics. A few passages extracted almost at random will suffice to show the nature of the author's doctrine and the manner of his expression.

"The goal towards which we strive is the goal of human freedom. . . . Our ideal is the replacement of a blind and inexorable system of institutions by self-determination and self-responsibility. . . . Renunciation is the guiding star of social morality . . . self-surrender to the community, the abandonment of unjust and immoral claims, the perpetuation of responsibility towards spiritual and moral powers. . . . The transcendental path stands gloriously wide. It is not the way of the churches and the cloisters, of dogma and ritual, but the way of spiritual experience and contemplation, and everyone has set his foot upon this way who, freed from the narrow and clamorous aims of intellectual thought, freed from the trammels

of desire, has in reverent silence surrendered himself to Love, Nature, and the Godhead."

We could fill pages with similarly effusive extracts. Many of them are directed against the soulless routine which is attributed to modern industry; the prevalent *mechanisation*, to use one of the author's favourite phrases. Ruskin did not protest more vigorously against the abuses of machinery. But Ruskin's economic solecisms cannot be imputed to Rathenau. The President of the *Allgemeine Electricitäts Gesellschaft* was not so ignorant of business as to suppose that interest could or should be abolished. Very felicitously he supposes that, the Socialist revolution having been accomplished, the world President (enthroned in Chicago) has to select between a number of enterprises competing for a supply of labour and materials. The President could not but be influenced in his choice by the willingness of the competing parties to pay more or less out of prospective profits into the world treasury. Accordingly "the nationalisation of the means of production has no economic significance." Materialistic Socialism and Bolshevic violence have no attraction for our idealist.

There is, however, this much in common between the herald of the days to come and less innocent doctrinaires, that he is ready to resort to heroic measures. It was a natural presumption on the part of Naaman the Syrian that a prophet invoked to cure a dire disease should prescribe "some great thing." So it is not surprising that one who, with the fervour of a Hebrew prophet, exposes the maladies of society should include among his recipes one or two great things.

One of his drastic measures is the suppression of unproductive consumption. He would make a clean sweep of "the lumber, the gauds, the fustian, the novelties, the whimsicalities, the fashionable absurdities" on which modern ladies expend sums that might have supported many German working-class families. He would suppress such extravagance by heavy taxation, not for fiscal purposes, but "practically prohibitive." Perhaps he had not sufficiently considered the grounds on which economists have generally pronounced against sumptuary legislation. Firstly, it has proved difficult to enforce. Our author's arguments remind us of the campaign against the vast ruffs worn of old by the Dutch ladies. In vain it was pointed out that the starch required by this fashion used up an amount of flour that might have supported many poor. The preachers thundered from their pulpits upon the sinfulness of starched ruffles, says Motley,

"with as much success as usually attends such eloquence." Rathenau is specially offended by the want of taste which the purchase of "needless hideous gimcrack articles" in fashionable shops evinces. But who is to be the judge of taste? Should not the apostle of freedom leave it to the choice of a cultivated people to determine what articles are hideous or needless? We should have expected the new gospel to run: Seek righteousness and all these things—or all that is bad in them—shall be subtracted.

Another startling innovation is the suppression of inheritance, not indeed completely, but far beyond the fiscal purposes of death-duties. "All inheritance over and above a moderate amount of landed property should accrue to the State." To the obvious objection that accumulation would be greatly discouraged, we do not find that a satisfactory answer is given. The author seems to suppose that directors and managers would continue to conduct and enlarge their businesses without the stimulus of self-interest. He trusts to "the progressive suppression of covetousness by the sense of responsibility." "The de-individualisation of ownership, the objectification of enterprise, the detachment of property from the possessor leads to a point where the enterprise becomes transformed as it were into a trusteeship, or perhaps it would be better to say into an institution resembling the State." . . . "It is no longer the wealthy capitalist's desire for gain which shapes the enterprise. The undertaking itself, now grown into an objective personality, maintains itself."

There is another point at which the author's divergence from the classical political economy gives us pause. Suppose his earthly paradise realised, approximate equality—which appears as a result, if not a prime end, of his reforms—to prevail, with considerable comfort too, as we infer—we read, for instance, of transportation being free. Yet there is a snake in this Eden which has not been noticed. It is that which Malthus pointed out with reference to the "systems of equality" proposed in his time. Much of his reply might be transferred with a mere change of name to the scheme now before us. "In reading Mr. Godwin's ingenious work on political justice it is impossible not to be struck with the force and precision of some of his reasonings, the ardent tone of his thoughts. . . . The system of equality which Mr. Godwin proposes is on a first view the most beautiful and engaging of any that has yet appeared. . . . The substitution of benevolence as the mainspring and moving

principle of society, instead of self-love, appears at first sight to be a consummation devoutly to be wished. But," continues Malthus, "I cannot conceive a form of society so favourable to population"; and he deduces the ruin of the system from the pressure of population to which it would lead. It is true that some of Godwin's proposals have no parallel in Rathenau's system. Also the probabilities of food being increased or of population being repressed are not now exactly the same as those which Malthus balanced. There is still, however, a balance; and we think it ought to have been held by the promoter of an ideal "People's State." Out of the enormous multitude of his words he should have spared some for the discussion of this topic.

Altogether we are disposed to class Rathenau with Carlyle and Ruskin as a preacher rather than a teacher; an authority about ends rather than means. He lifts our eyes to distant and sublime heights; he directs our feet by paths which may prove unsafe or impracticable.

F. Y. EDGEWORTH

AN EIGHTEENTH-CENTURY COMBINATION IN THE COPPER-MINING INDUSTRY

THE history of the combination among the producers of copper between the years 1785 and 1792 is interesting, not only because its form affords us an early example of a modern type of combination, but also because its development during the seven years of its existence presents a curious parallel to that of many recent combinations. A short description of the course of events in the copper-mining industry during the years which immediately preceded the formation of the combine will be sufficient to indicate the causes which brought it about, and will in addition show the way in which Boulton & Watt [1] became so intimately connected with the industry. That connection, as will be seen, was fraught with the most serious consequences.

About 1780 there were two main producing centres of copper ore in this country, Cornwall and Anglesea. They were bitter competitors, and the conditions under which copper was mined in the two counties were so different as to deserve notice. While the two mines of Anglesea (the Paris and Mona Mines) were recent discoveries and were worked at small expense, most of the numerous Cornish mines were deep and in continual danger of becoming water-logged.[2] Copper mining in Cornwall would in fact have been an almost impossible undertaking, if there had been no pumping engines to free the mines from water, and throughout the eighteenth century Savery's and Newcomen's engines had been employed for that purpose. By the '70's, however, these were proving inefficient and very expensive to work, owing to the increasing depths of the mines, and it seems

[1] Most of the material for this essay has been obtained from the Boulton & Watt MSS. in the Birmingham Public Library. The letters, which Boulton wrote to his partner, while the former was in Cornwall, have proved the chief source of information. As the correspondence is for the most part unclassified, it has been impossible in some cases to give as exact references as might be wished. A box labelled *Cornish Letters* contains the greater part of the information given here about the Cornish Metal Company, including a valuable account in outline of its activities up to 1787; but there is among the MSS. a large amount of material, to which it is impossible to refer with any degree of precision.

[2] Hunt, *British Mining*; and *The Journal of the Royal Geological Society of Cornwall*, Vol. III.

probable that it was only the appearance of Watt's engine which saved the mines from complete extinction. In 1777 his engines were introduced into Cornwall, and were adapted by most of the mining companies of "adventurers." [1] A considerable saving in the cost of coal and a much greater efficiency in working resulted. This reduction in the cost of producing the ore gave a stimulus to Cornish mining, and the revival of old mines and the opening of many new ones came as a direct consequence. The result was an increase in the supply of copper in the '80's, which, being unaccompanied by any appreciable increase in demand, brought about a fall in price,[2] which again reduced the mines to their previous unprofitable position. It is in this connection that Boulton and Watt came to exercise an important influence on the future history of the industry. As they relied for their income, not only on the sale of their engines, but also on the monthly dues or "savings" paid to them by those adventurers who had made use of their patent, this fall in price, which rendered probable the abandonment of many of the mines, threatened Boulton and Watt with a loss of their patent dues.[3] Since, moreover, at this time the Cornish mines provided practically the only market for their engines, the ruin of the industry would have brought disaster on the partners. Realising that the mines must be kept going at all costs, Boulton at first attempted to encourage the adventurers to continue to work the mines by taking shares in them [4]—a practice which was followed by the other contractors to the mines,[5] whose interests were in many respects coincident with those of Boulton and Watt. Although the latter lost money by these investments, they more than recompensed themselves for such losses by the profits on their engine business. Boulton soon found, however, that this method would be inadequate to prevent the mines from ceasing to work, for during the early '80's their position became desperate. His next step, therefore, was an attempt to improve the management of the mines, and he used his power as a shareholder to destroy the waste and inefficiency, of which there were many glaring instances in the mine administration.[6] More interesting, however, were his attempts to reorganise the copper trade on its marketing side, attempts which led ultimately to the formation of the combine of 1785.

[1] Boulton & Watt MSS., *An Account of the Benefits of Watt's Engines to Cornwall, July 13th*, 1795.

[2] *Ibid., Boulton to Watt, Nov. 24th*, 1780. [3] *Ibid., October* 1782.

[4] *Ibid., July* 1781. [5] *Ibid., George Fox to Watt, January 29th*, 1784.

[6] *Ibid., Boulton to Watt, August 22nd*, 1785.

The nature of the problem which Boulton set himself to solve was twofold. Firstly, it was essential that the relation between the Cornish adventurers and the various smelting companies should be changed; and, secondly, the competition between Cornwall and its rival Anglesea had to be restricted. There is no space here to consider the curious methods by which the Cornish ores were disposed of during the eighteenth century to the Welsh smelters, who marketed them. It suffices to say that during the '70's and early '80's the ores were purchased at "ticketings" by eleven different smelting companies.[1] "These companies were perpetually contending with each other as well as with Anglesea, and the method of combating each other was by lowering the price of copper, which generally produced a proportionate effect in the price of ores, to the great detriment of the miners."[2] It seems that at this time the prices which the adventurers received from the smelters for the ores were even lower than the depressed state of the copper market warranted, and the miners were unable to hold out for higher prices, partly because they were disunited, and partly owing to the fact that their capital was small when compared with the great expense of working the mines.[3] This meant that they relied on the proceeds of each monthly sale to enable them to meet the expenses of the following month, and they were, therefore, not in a position to refuse the low prices which the smelters offered. Thus the trade was wholly in the power of the smelting companies, and Boulton realised that the miners' fortunes could never improve while this method of marketing their produce was maintained. In his attempt to wrest the control of the copper trade from the smelters, Boulton was supported by Thomas Williams, the manager of the two Anglesea mines, who had no cause to love the smelting companies, since they were his bitter competitors. It may be noted that the Anglesea miners, although they were at one time "oppressed by the copper companies" as Cornwall was, had taken steps to set up smelting works of their own and to market their copper themselves.[4] They were especially successful in developing the foreign markets.[5] The increase of Anglesea's production at this time was even greater than that of Cornwall's. In 1778, Anglesea produced

[1] Hunt, *British Mining*, *Letter from Thomas Williams to Lord Uxbridge, August 6th*, 1785.

[2] Boulton & Watt MSS., Account of Cornish Metal Company among *Cornish Letters*, c. 1787.

[3] *Ibid.*

[4] Boulton & Watt MSS., *Boulton to Watt, June 10th*, 1785. [5] *Ibid.*

1200 tons of copper compared with its rival's 3000 tons; in 1785 the respective amounts obtained at the two centres were 3000 tons and 4400 tons.[1] In these circumstances there can be no wonder that the market was glutted, and that both centres suffered from mutual competition. Between 1780 and 1785 both Boulton and Williams had suggested many schemes to the Cornish adventurers, by which the latter might free themselves from the smelters' control and come to some agreement with Anglesea for the purpose of maintaining a high level of prices.[2] It was not till 1785 that these proposals began to receive general support in Cornwall, but in the autumn of that year a thorough reorganisation of the copper trade on its marketing side was effected.

The initiators of the "copper revolution," as it was called, realised that if the Cornish miners were to control the smelting and marketing of their ores, fresh capital would have to be introduced into the industry, and a new organisation set up, which could co-ordinate the activities of the numerous mines. To this end the Cornish Metal Company was established on September 1st, 1785, with a nominal capital of £500,000, £130,000 of which was immediately subscribed.[3] A large proportion of this, it may be noted, was advanced by Boulton and his friends, and by the other contractors to the mining companies. The objects of the Metal Company, it was stated, were "to keep up the price of copper ores at a proper standard and to contract for the smelting of all ores as should best promote the interests of the mines."[4] The Company agreed to buy all the ores raised in Cornwall from September 1st, 1785, to September 1st, 1792, and to sell the copper in a metallic state. The associated miners of Cornwall, for their part, agreed to sell all their ores to the Company at such prices as should be fixed by the Governor and by the thirty-six directors, two-thirds of whom were to be nominated by the miners. They also guaranteed to the subscribers to the Company's capital interest at the rate of eight per cent. per annum.[5] Thus after September 1785 Cornwall possessed a central selling agency, which bore a close resemblance to the modern Kartel, and which controlled the marketing of all the ores raised in the county. It was now in a position to

[1] Hunt, *British Mining.*

[2] Boulton & Watt MSS., *Boulton to Watt, October,* 1782; and Hunt, *British Mining, Letter from Williams to Lord Uxbridge, August 6th,* 1785.

[3] Boulton & Watt MSS., *Cornish Letters.*

[4] *Ibid., Resolution of Meeting of Lords and Adventurers, July 22nd,* 1785.

[5] *Ibid.*

come to some agreement with Anglesea, by which prices could be maintained at a high level to the benefit of all copper producers.

According to the price agreement between the Cornish Metal Company and Anglesea a minimum price for all the copper produced by the two centres was fixed, and from this price both parties bound themselves not to depart under a penalty of £100,000. Cornwall's share of the total sales was to be three-fifths, while that of Anglesea was fixed at two-fifths.[1] It is to be remarked, however, that no attempt was made at the time to set any limit to the total amount of production. By this agreement it was also stipulated that, after the ore had been smelted, the metal was to be sent for sale to warehouses at London, Birmingham, Bristol and Liverpool. Anglesea was given the right of serving Liverpool, Cornwall that of supplying the Bristol consumers; while both at Birmingham and London there was to be a general warehouse, to which both centres were to send their copper. Each party was required to present the other with weekly accounts of its sales, and five merchants were to be appointed "to govern and direct the trade for the mutual benefit of each party." The operation of the contract was to begin in May 1786, after which date the price of copper was to be £86 a ton.[2] This price, it seems, was about £12 higher than that which had ruled in May 1785; and it was thought that high prices could in the future be paid for Cornish ores, that Boulton & Watt's engine dues would be secured, and that large profits would be gained by all who were concerned in the copper industry.

The optimism which greeted the formation of this combination was, however, hardly justified by its results. Just as the introduction of Watt's engines had first brought salvation to the miners, but later had resulted in the full weight of their burdens being restored, so the prosperity which accompanied the Metal Company in its first few months of life was productive of forces which ultimately led to disaster. The formation of the combine brought about an immediate rise in the price of copper,[3] and this fact, together with the knowledge that the price would be £86 a ton after the next May, caused the directors of the Metal Company to be generous in the prices at which they bought ores from the miners. This increase in the price of ores "threw a temporary gleam of sunshine on the miners

[1] Boulton & Watt MSS., *Cornish Letters*. [2] *Ibid.*
[3] *Ibid.*, *Boulton to Watt, July 10th*, 1785.

and encouraged them to erect new engines in deep mines at great expense." [1] The result was that a greater quantity of ore began to be produced than the Metal Company could dispose of in a metallic state, and so a stock of unsaleable copper soon began to accumulate.[2]

It was not, however, the excessive production which alone caused this accumulation of copper. The stocks of this metal in the hands of some of the old smelting companies were "much greater than had been computed"; while certain other mining companies, which possessed rich mines and large stocks of copper, had not been included within the price association. Their production was stimulated by the high prices which ruled at this time, and they and the smelting companies sold copper considerably under the price stipulated by the agreement between Cornwall and Anglesea.[3] By 1787, moreover, foreign copper from Hungary, Sweden and Holland began to flow into England, as well as into the foreign markets which Cornwall and Anglesea had previously supplied. One instance is well worth mentioning. A quantity of unrefined copper, "which had lain for years at Cadiz while low prices were to be had," was bought by an English firm, shipped to this country, refined, and sold under the price fixed by the agreement.[4]

It is worth remarking that the possibility of foreign competition had been foreseen by the promoters of the combination, even before the danger had become immediate, for in March 1786 there was an unsuccessful attempt to induce the Swedish copper producers to enter into the price association.[5]

The effect of this competition on the fortunes of the combination may best be realised by a consideration of the Metal Company's accounts which were presented in October 1787. By this time practically the whole of the Company's capital was represented by a stock of copper in its warehouses,[6] although an additional subscription of £11,000 had been raised a few months before. The Company, moreover, was deeply in debt. When it had found that its initial capital had been insufficient to enable its contract with the miners to be carried out, owing to lack of sales, recourse was had to a temporary form of loan.[7] A contract was made between the Company and the smelters, by which the latter, instead of receiving a fixed sum for smelting,

[1] Boulton & Watt MSS., *Cornish Letters.* [2] *Ibid.* [3] *Ibid.* [4] *Ibid.*

[5] *Ibid., Wilson to Boulton & Watt, March 3rd,* 1786.

[6] *Ibid., Boulton to Watt, October 11th,* 1787; *Boulton to Wedgwood, October 15th,* 1787.

[7] *Ibid., Cornish Letters.*

agreed to pay for the ores, when delivered to them by the Company. These ores, though in the possession of the smelting houses, were still to be considered the property of the Company, and were really a security for a loan advanced to it. At the end of the "regulated time of smelting ores" the copper was to be returned to the Metal Company, which then repaid to the smelters the money advanced and interest at the rate of eight per cent. Although this method was only meant to be a temporary expedient for raising money, in actual fact more and more advances had to be obtained from the smelters, so that by 1787 these advances had become practically permanent loans and amounted to £228,500. This sum was secured by 2677 tons of copper in the smelters' possession, while in the Company's own warehouses were 4027 tons. The total value of the whole stock was over half a million pounds.[1]

At the Company's meeting in October 1787 it was estimated that this stock was at least equal to a two years' supply, and so it was declared that the Company would have to deduct from the prices paid to the miners for their ores a sum equal to two years' interest on the capital invested in their purchase.[2] It was evident that this would make the burden on the miners intolerable. A few small mines had already been stopped and all were losing by this time. A further reduction would complete the ruin of the industry.

Moreover, disputes with Anglesea had before this time broken out. Since Williams was a skilful salesman, he had managed to obtain the principal sales for his own mines, and Cornwall was unable to make up its due proportion of the total sales. Williams, however, refused to restrict his sales in any degree—to the wrath of the Cornishmen.[3]

Boulton saw clearly enough that the only possible way of preventing the ruin both of the Metal Company and of the miners was to secure a restriction of produce. This course he strongly urged on the adventurers during the autumn of 1787, but for some time without effect.[4] Mutual jealousies among the adventurers made it impossible for a decision to be arrived at as to which mines should be closed, but another and more potent reason prevented the Cornishmen from adopting his plan. The adventurers were frightened of the working miners. The latter, on hearing of the probable cessation of work in some

[1] Boulton & Watt MSS., *Boulton to Watt, October 11th*, 1787. [2] *Ibid.*

[3] *Ibid., March 3rd*, 1787; *and June 15th*, 1787.

[4] *Ibid., Cornish Letters.*

mines, had revolted and attacked Truro, where the Company's offices were situated.[1] The mob was dispersed only with great difficulty, and "no mine dared give up" [2] for fear of another riot. If the mines stopped, moreover, considerable numbers of miners would be thrown out of work. As these "could not in that county get their bread by any other means, they would prove an intolerable burden to the parishes to which they belonged." [3] So the adventurers informed Boulton that "they might as well sink their money in employing the poor as maintain them without working."

The state of the Company's finances, together with the fact that Anglesea had sold more than her fair share of copper, induced the miners at the meeting in October 1787 to decide to break their agreements both with the Metal Company and with Anglesea, and to revert to the old methods of sale. In order to prevent the Company from further depressing the market by attempting to sell its huge stock, the miners agreed to pay the subscribers £17,000 a year for five years provided that the Company did not sell more than 1300 tons of copper a year.[4] The result of this breach of the contract was disastrous. Anglesea immediately lowered the price of its copper, which still more reduced the sales of Cornish copper,[5] and it seemed that Cornwall was now doomed as a copper-producing centre.

This renewal of competition was disliked, however, by Anglesea almost as much as by Cornwall, and before the end of the year another agreement was made, by which the Cornish Metal Company's position was re-established and its contract with Anglesea renewed with modifications.[6] In this new contract attempts were made to avoid the defects of the former combination; but prolonged negotiations were necessary before the following terms were accepted by both parties. In order to avoid mutual suspicions and breaches in the agreement, it was decided to place the sale of all the copper produced in Cornwall and Anglesea in one hand until September 1792. Thomas Williams was made the joint agent of the two centres. He was to reside at London, to direct the course of the trade from there, and, in return, to receive a commission of two per cent. on the amount of the sales.[7] The price of copper was to be fixed at joint quarterly meetings at London; but, to avoid the danger

[1] Boulton & Watt MSS., *Boulton to Watt, October 8th*, 1787.
[2] *Ibid., October 11th*, 1787.
[3] *Ibid., Cornish Letters.*
[4] *Ibid., Boulton to Watt, October 11th*, 1787.
[5] *Ibid., Cornish Letters.*
[6] *Ibid., Boulton to Watt, November 8th*, 1787.
[7] *Ibid., February 20th*, 1788.

of unforeseen competition, there was to be a certain amount of elasticity in the price. It was also stipulated that both Cornwall and Anglesea should restrict the production of copper to 3000 tons each per annum, and, although for 1788 Cornwall was to be allowed to sell twice as much as Anglesea, in subsequent years the sales were to be equal. The price of copper, moreover, was reduced to £80 a ton.

One very significant suggestion, which received much support about this time, is worth noticing. It was that a Bill should be introduced into Parliament to bind the contracting parties, and that " five commissioners should be appointed by this Act to see it put into execution, and to be ultimate arbiters in all disputes." [1] Although there was much talk about this Act, it does not seem evident that Parliamentary sanction was actually sought for the new combination.

It was chiefly due to the efforts of Boulton and of Williams that the agreements had been resuscitated, and during the early months of 1788 they used their influence in the trade to enforce a restriction of output, which was so necessary for the success of the combination. Only with utmost difficulty, however, could the Cornish adventurers be prevailed upon to give up their mines or reduce their production.[2] Although several mines stopped working in 1788 owing to their heavy losses, the Metal Company found it necessary to bring about a further decrease by granting " a compensation to such mines " as would discontinue working, " equal to 40*s*. for every ton of copper annually produced." [3] It was not, however, till October 1789, after the cessation of several large mines,[4] that the desired reduction had been brought about, and that the Metal Company could dispose of any part of its enormous stock which had been accumulating up to that date.

Although the Metal Company had been saved from complete ruin, the position of all those concerned in the copper-mining industry was in 1789 still very serious. The Company was burdened with huge stocks, and could not, therefore, afford to give reasonable prices for the ores.[5] For this reason nearly all the mining companies of Cornwall were losing money.[6] The merchants who supplied them with materials had to consent

[1] Boulton & Watt MSS., *Cornish Letters*.
[2] *Ibid.*, *Boulton to Fox, January 30th*, 1788.
[3] *Ibid.*, *Minute of a Metal Company Committee Meeting, February 28th*, 1788.
[4] *Ibid.*, *An Account of the Benefits of Watt's Engines to Cornwall, July 13th*, 1795.
[5] *Ibid.*, *Cornish Letters*. [6] *Ibid.*, *Boulton to Watt, October 5th*, 1789.

to a reduction on their bills, and Boulton & Watt were unable to obtain the payments of their engine dues from many of the mines. Where the mines had stopped working the partners' loss was, of course, permanent. Among the labouring miners the direst poverty and distress were the fruits of the Metal Company's failure. The reduction in the "get" of ore, and in its price meant that thousands were thrown out of work or reduced to starvation wages. Among these miners at this time "the spirit of violence was upon the ferment." [1] When it was decided to close one mine in the autumn of 1789, they "intimated a visit to take down the greatest house in Truro." [2] The mine did not close! For some time past all that Boulton had been able to suggest as a remedy was that "Mr. Pitt" should "send orders for 3000 tons of copper," or, as an alternative, "a press gang." There seemed, in fact, no possibility of getting rid of the huge stock, by which the Metal Company was burdened, and yet its sale was the only means by which the prices paid for the ores could be raised.

The next year, however, Cornwall was saved as if by a miracle. The great store of copper ore in Anglesea, which had been mined so cheaply, was by 1790 becoming exhausted.[3] Its decay was apparently quite unexpected by those interested in the Cornish mines, for Boulton often declared, just before this time, that Williams' ultimate aim was to supply the whole of the copper market, and that his alliance with Cornwall was merely a temporary policy to keep up prices until he could do so.

This decline in Anglesea's production enabled the Metal Company to dispose of some of its surplus stock during 1790, and so to give considerably higher prices for the ores.[4] Yet, in spite of the improvement in the situation, the burden of the stock, which amounted in 1790 to 5500 tons of copper, valued at £400,000, lay heavy on the adventurers. Several of them began selling to the excluded smelting companies, which, having no dead stock, could offer higher prices for the ores than the Metal Company could.[5] In order to induce the adventurers to keep to their contracts and to maintain the combination intact, Williams in July 1790 offered to smelt the ores at the Anglesea works "upon lower terms than is in the power of the old

[1] Boulton & Watt MSS., *Boulton to Watt, October 5th*, 1789. [2] *Ibid.*

[3] Joseph Carne, *A Paper in the Journal of the Royal Geological Society of Cornwall.*

[4] Boulton & Watt MSS., *Cornish Letters.*

[5] *Ibid., Circular Letter from Williams to the Cornish Copper Miners, July 9th*, 1790.

companies."[1] He declared that the market at that time would take only 6500 tons of copper, but he was prepared to allow Cornwall to supply 4000 tons of this to Anglesea's 2500 tons. He also offered to the shareholders of the Metal Company a douceur of 2½ per cent. on their capital in order to induce them to keep the Company in existence beyond the date fixed for its dissolution. By this means he hoped to retain a control over the copper trade even after Anglesea had been reduced to impotence as a producing centre. The result of the entire scheme is doubtful; but it is certain that he was not successful in his attempt to prolong the life of the Company, for it came to an end early in 1792.[2]

By that time the Metal Company's position had enormously improved. It had sold the whole of its stock; it had wiped off its debts; and by March 1792 it possessed practically intact its subscribed capital.[3] This achievement was only possible, as one writer says, because "the reduced produce of the mines of Anglesea, in conjunction with the ruin of several Cornish mines, had the effect of raising the price of copper from £80, at which it stood in 1790, to £90, which was its price in 1791."[4] By 1792 copper stood at £100 a ton.[5] Thus the Metal Company was able to get rid of its stock at a high price on a market from which its most dangerous competitor had been removed. The clause in the price agreement that the sales of both Cornwall and Anglesea should be equal after 1788 was, of course, ignored, when Anglesea proved unable to supply its quota.

It might be thought that the Cornish production of copper would have rapidly increased after 1790; but this did not immediately occur. The explanation is to be found in the fact that, once the mines had been closed, it was always a long and expensive business to set them to work again. Extensive floods, moreover, which occurred in 1791, made any such attempt useless.[6] Thus all favoured the Metal Company, when once its fortunes had changed.

It is curious to notice that Boulton was by no means so pleased with the improvement as might have been expected. His interests by 1790 had undergone a change. Before that date they had been, in the main, linked with those of the producers

[1] Boulton & Watt MSS., *Circular Letter from Williams to the Cornish Copper Miners, July 9th*, 1790.

[2] *Ibid., Accounts of Cornish Metal Company, March 1st*, 1792. [3] *Ibid.*

[4] Joseph Carne, *Journal of the Royal Geological Society of Cornwall.*

[5] Hunt, *British Mining.*

[6] Boulton & Watt MSS., *Boulton to Watt, March 26th*, 1791.

of copper; afterwards he became more interested in the copper industry as a consumer. This was due to the development of his coining business, which he had begun when the price of copper was low, and which had been stimulated by the large purchases of copper that he had made in 1788 from the Metal Company, in order to relieve it of part of its stock.[1] After 1790, while other markets for Watt's engines were developing, and while Cornwall was, therefore, no longer of such vital interest to the partners as it once had been, Boulton's coining business was beginning to assume considerable proportions. So it can be understood that the rise in the price of copper became a very serious matter for him, now that the centre of his interests had shifted. Thus Boulton, who had striven so hard to form a combination to put up prices, was now hit very hard by the organisation which he had himself created. Possibly it was owing to his influence that the Company came to an end in March 1792, even before the expiration of its contract with the Cornish miners.

From this time onwards the demand for copper rapidly increased as a result of the extension of manufactures in England, and of the growth of the navy during the French war. In spite of the great increase in the " get " of ore after 1792, and although the old methods of sale were reverted to, prices rose almost without interruption until the end of the century.[2] This, of course, rendered any attempt to renew the combination unnecessary, nor was any such attempt made after the Cornish Metal Company had been dissolved.

G. C. ALLEN

[1] Smiles, *Lives of Boulton & Watt;* also, Boulton & Watt MSS., *Boulton to Watt, March 26th,* 1791.

[2] Hunt, *British Mining.*

REVIEWS

English Local Government: Statutory Authorities for Special Purposes. By SIDNEY and BEATRICE WEBB. (Longmans, Green and Co. Pp. 521. 25*s*. net.)

AT the close of this volume Mr. and Mrs. Webb tell us that their work on the history of English Local Government is drawing towards its end. For a quarter of a century, in spite of the performance year by year of other political, scientific, and administrative duties sufficient to constitute for most people a full-time occupation, they have kept up the enormous labour of preparing from scores of tons of original documents a history of their subject from 1689 to 1832. Now they promise us one more volume on "The Relief of the Poor and the Repression of Vagrancy," and then, "all the fascinating evolution of Parish and Borough and County into the Local Government of to-day we must regretfully leave to be described by younger students."

A newspaper reviewer of an earlier volume in the series wrote that "this work will necessitate the re-writing of English history." That re-writing has not yet taken place. As far as I know, no school history-master yet tells his class about the evolution after 1689 of Quarter Sessions from a purely judicial to a largely administrative body, controlling, more than did the King's Government, the lives and fortunes of the majority of the population; and no scholarship question is asked by any college about the reform of the prisons, or about that problem of highway communication which has been so vitally important to the other elements of English history. If there are still any living descendants of Joseph Merceron or William Mainwaring, they can go to school or college without the fear of having to blush for the way in which their ancestors made their money.

To the future writer of general English history the most important parts of this volume will be its demonstration of the part played in English social evolution of the eighteen hundred "Statutory Authorities" created (mainly during the eighteenth century) for special purposes by ten thousand local acts (p. 7), and in the aggregate "more than eight times as numerous as the

Municipal Corporations . . . and thirty times as numerous as the Courts of Justices in Quarter Sessions that governed the Counties" (p. 2). Perhaps the most interesting and to most readers the newest of these are the "Courts of Sewers" (Chap. I), which did so much to turn the mediæval England of "huge, great and vast fens and marshes" into the tidy, closely cultivated country-side which our American visitors admire to-day. The text-book historian will also have to note the demonstration that English urban history practically begins in the second half of the eighteenth century. "When William of Orange landed at Tor Bay . . . omitting the anomalous City of London with its outlying villages, and the ancient cities of Bristol and Norwich, which counted each thirty thousand inhabitants, there were . . . no towns of even twenty thousand—a figure not reached at that date by either York or Exeter—whilst only half a dozen others exceeded five thousand" (p. 399). In spite of our instinctive disinclination to think or speak of dirt, a time may come when text-books will quote from each other the Webbs' description of our experiments in town-building without organised sanitation. "To any Englishman of the present day, who found himself suddenly transported to the London or Birmingham, the Liverpool or Sheffield of a century ago, the most striking feature would probably be the 'general nastiness' of the ground he trod upon, defiled by an almost incredible accumulation of every kind of filth. He might next notice the noisome and all-pervading stench, which was so customary and continuous as to be scarcely ever commented upon. . . . The dense swarms of pallid, undersized and wretchedly clothed wage-earners, who constituted all but a tiny minority of the population, might have been noticed, by a twentieth-century observer, to be perpetually suffering from ill-health, and to be, in fact, practically all either sickening for or recovering from attacks of what we should now term either enteric or typhus" (pp. 403-405).

More technical students will examine the "principles" and other generalisations which the writers deduce from their long familiarity with the original material. The first part of the book contains a good deal of repetition, from a new point of view, of facts already dealt with in earlier volumes, and the second part is a summary of their general conclusions as to the causes by which the system, in so far as it was a system, of 1689 was turned into that of 1836. Anyone who has tried to make generalisations in social history knows how difficult it is to be both accurate and intelligible. There are millions of facts each different from the

other, and any generalisation must necessarily involve a certain degree of over-simplification and over-emphasis. But after allowing for that, and for the many cases in which the generalisations are both new and, as it seems to me, true, I myself find it difficult to accept some of the conclusions in this book. In particular I think that the authors greatly exaggerate the importance during the eighteenth century of what they call (with that use of capital letters which they have done so much to restore to English scientific writing) "Vocational Organisation" in English eighteenth-century local government. Their "Constitution for the Socialist Commonwealth" (1920) and many of their other writings show that the Webbs have shared the present widespread dissatisfaction with representation, based on merely local constituencies, as the sole basis for a reformed social system, and that they are now strongly convinced of the need in local government of an effective organisation of the producers as such. In reading this volume I sometimes feel that this conviction has leaked subconsciously into their view of eighteenth-century history. Of the five "ideas that governed men's minds, the traditional concepts still potent in constitutional organisation—inherited in 1689 from previous centuries, and embodied in the local institutions of the eighteenth century," they give, as the first, "the Obligation to Serve," and as the second "Vocational Organisation as the very basis of government" (p. 365). "At the close of the seventeenth century," they say in the argument by which they illustrate this second proposition, "governmental authority was frequently vested in a group, a company, or a corporation associated for some production or supply of services or commodities." They give, as instances, the Church, the Inns of Court, the College of Physicians, etc., and the fact that "Such chartered incorporations as the East India Company, the New River Company, the Bank of England, and the various national companies for colonial and foreign trade, or for mining or manufacture, could receive analogous powers" (p. 366). If the phrase "vocational organisation as the very basis of government" is to be used to include the power of making bye-laws exercised by representatives of the owners of inherited shares in the New River Company in the eighteenth century, or by the shareholders of a railway company to-day, the use of the term "vocational organisation" in modern social controversy must be radically changed, and I am not sure that the Webbs are always careful to make that change. They also seem to me to strain their terms when they argue that the eighteenth-century Municipal

Corporation was an Association of Producers, because such a Corporation, " feeling itself merely a group of privileged persons, inevitably considered its market or its port, like its commons or its charitable endowments, as belonging morally as well as legally to its members, and to its members exclusively (p. 368)." They add, in a footnote, " It would, we think, be far-fetched to emphasise traces of vocational organisation in the County or Parish government. But it is worth noting that the Justices belonged originally all to one class, that of owners of agricultural land, with which their connection was much more than that of receivers of rent . . . and though the Parish organisation . . . was distinctively communal in character, the members, in practice, were usually all agriculturists " (p. 369). It seems to me that the classification of the New River Company or the eighteenth-century Norwich Corporation as vocational organisations is more, rather than less, " far-fetched " than would be the same classification of Quarter Sessions or the Parish Vestry. On a later page, indeed, the Webbs roundly say, " The Manor and the Municipal Corporation, and even the landowners, who as Justices of the Peace ruled the Counties . . . were all of the nature of Associations of Producers " (p. 437).

In their earlier volumes I have often thought that the Webbs, who have the merit as historians of being vigorously human, were often hard on Bentham and his utilitarian followers. Chadwick and Parkes and Bentham himself might in their pages almost have been members of Mr. Asquith's Cabinet. In this book one does not feel this so strongly, and it is pleasant to find in a footnote the statement that " Bentham deserves credit for his sketch of a Ministry of Health a century before such a Ministry was established " (p. 464). But still I do not think that sufficient justice is done to Bentham's amazing achievements as a political inventor, or to the effect of his inventions on the actual course of events.

All these points are, however, comparatively small matters. The big thing about this long series of inquiries is the mass of hitherto unknown or unnoticed facts collected with passionate industry, and expounded with a passionate conviction of their importance. As I look back on this book and its predecessors, my main feeling is one of pity for the little race of men with their limited powers of understanding and forethought, and their vast capacity for suffering. Their institutions are so heedlessly fashioned, and when once fashioned pass so easily out of the knowledge of the overwhelming majority of those who are to be

affected by them. If ever a British Soviet should give us a system of local government as complex as that devised by Mr. G. D. H. Cole, or as that resulting from the ten thousand local acts of the eighteenth century, those who understood and managed its complexities might be the successors of Joseph Merceron, or W. M. Tweed, or Richard Croker. Our only hope is that political and administrative arrangements may some day be made as simple and intelligible as possible, and that understanding and criticism of those arrangements, and of the processes needed to adapt them to new conditions, may become part of the accumulated heritage of every civilised community, arranged in accessible libraries, explained in university courses, and valued, as the achievements of natural science are now valued, by the whole community. If that ever comes to pass the names of Sidney and Beatrice Webb will stand near that of their old enemy Jeremy Bentham in the temple of political science.

GRAHAM WALLAS

The Making of Index-Numbers: a Study of their Varieties, Tests, and Reliability. By IRVING FISHER, Professor of Political Economy, Yale University. (Boston and New York: Houghton Mifflin Company, 1922. Pp. xxxii + 526.) Price, $7·50.)

IN the opinion of the author the best form for the calculation of an index-number can be decided by the application of certain tests of a definite and universal kind, and these tests are equally valid whatever the purpose of the number. There is no subtlety in the problem of measurement and no place for ambiguity. M. March's distinction between an "index monétaire," which measures such changes in the value of the unit of currency as may be produced by inflation, and an "index budgétaire," which measures the change in the cost of an aggregate of goods, is rejected; Professor Edgeworth's analysis of the accuracy of averages formed from samples, and generally the application of the theory of probability, are not proper to the problem (p. 380); the brief chapter on "Other Practical Considerations," in which the questions of sampling and classification are discussed, is quite insufficient for its purpose. Professor Fisher's treatment would perhaps be less arbitrary if he had spent more thought on the definition and purpose of an index-number and on the principles of weighting. To him, "an *index-number* of the prices of a *number* of commodities is an *average* of their price relatives,"

"the fundamental purpose of an index-number is that it shall *fairly represent*, so far as one single figure can, the general trend of the many diverging ratios from which it is calculated"; weighting must be "fair." Definitions of such vagueness do not form an adequate basis for scientific analysis.

Six types of index-numbers are considered: arithmetic, harmonic, geometric, median, mode and "aggregative." Of these, the Mode is quite properly rejected. The Median is at first rejected as "freakish" or erratic, but in the end is found to be better than any other unweighted index-number; this conclusion is reached by examination of its results in a particular case, for Professor Fisher does not seem to be aware that the probable error of the Median is little more than ($\frac{5}{4}$ of) that of the Arithmetic Mean and that when some of the observations are abnormally dispersed it is less liable than other measurements to chance disturbance.[1] The Geometric Mean is on the whole approved, when weighted in particular ways, but on the ground that it satisfies the tests described below, rather than on its special appositeness for measuring changes of prices.[2] The Harmonic and Arithmetic Means are in essence similar, corresponding to the forward and backward workings on the same hypothesis. "Aggregatives" are merely alternative methods of stating weighted Arithmetic Means.[3] In the end we are left with various forms of the weighted Arithmetic and Geometric Means. So far there is little that is novel.

The main thesis of the book is that the "fairness," adequacy and accuracy of index-numbers can be tested by what are called "The Two Great Reversal Tests." It is surprising that the author has not thought it worth while to examine their basis carefully or to prove their validity. All he has to say is, "Index-numbers to be fair ought to work both ways . . . as regards the two times to be compared, or as regards the two sets of associated elements for which index-numbers may be calculated—that is, prices and quantities." Test 1 is, then, "The time (or place) reversal test," Test 2 is "The factor reversal test." These can be best examined with the help of the notation used—p_0, q_0 stand for

[1] See Edgeworth, *Phil. Mag.*, 1887, p. 270, and ECONOMIC JOURNAL, 1918, pp. 190 seq.; and Bowley, *Elements of Statistics*, 1920, p. 206.

[2] Walsh, *The Problem of Estimation*, passim. Bowley, ECONOMIC JOURNAL, 1921, p. 202.

[3] The formula used by Mr. Knibbs, and the U.S. Bureau and others in the aggregate form is $\Sigma p_1 q_0 / \Sigma p_0 q_0$, which is identical with $\Sigma wr/\Sigma w$, where $w = p_0 q_0$ and $r = p_1/p_0$. Since it has been commonly supposed that the method of aggregates has some peculiar merit, this identity (recognised by Professor Fisher) might advantageously have been given greater prominence.

a price or commodity in the first year (or place) considered; p_1, q_1 in the second year or place. Σ prefixed means that the quantities involved are to be summed over all the commodities included.

By Test 1, for example, the formula $1 : \Sigma q_0 p_1/\Sigma q_0 p_0$, where the prices at both years are weighted by the quantities in the first year (forward working), should give the same result as $\Sigma q_1 p_0/\Sigma q_1 p_1 : 1 = 1 : \Sigma q_1 p_1/\Sigma q_1 p_0$, where the quantities in the second year are taken (backward working). This is only the case if the correlation between the increase in quantities and the change in prices is zero, which cannot generally be assumed; in fact, this correlation is generally negative.[1] If there is nothing to choose between the claims of the two years to influence the number, this discrepancy invalidates either index-number used alone, and it has long been recognised that some mean between the two should be taken. Since, however, a second valuation of quantities has not generally been obtainable (except in the case of index-numbers based on import and export statistics or repeated Censuses of Production), statisticians have been compelled to use unchanged weights over long periods. The smallness of the correlation involved has generally prevented any serious error over periods not immoderately long.

It is a question, however, whether the test is universally valid. (*a*) The quantities in the first period may be normal (as in the year 1913), in the second abnormal (as in the year 1918); the symmetry is broken à priori. In comparing 1913 and 1918, the forward method may be more appropriate than the backward. (*b*) In considering the relative cost of living in England and France in 1905 (Cd. 4512), it was found that working on an Englishman's budget the French cost was 11 per cent. above the English, and working on a Frenchman's budget it was 6 per cent. above. From the point of view of an Englishman proposing to emigrate, the former measurement may have more importance than the latter. (*c*) In unweighted index-numbers, as used by the *Economist* and the *Statist*, the forward working gives $(\Sigma p_1/p_0)/n$, the backward working would give $n/\Sigma(p_0/p_1)$. The former is *always* greater than the latter.[2] Now in the forward working it is assumed that the

[1] If we write I_0 and I_1 for the forward and backward index-numbers, and d for $p_1/p_0 - I_0$, we have $I_0 - I_1 = \Sigma p_0(q_0 - q_1)d/\Sigma q_1 p_0$. When for a commodity d is positive, *i. e.* the price has risen more than the average, we may expect the quantity used to have fallen relatively, and $q_0 - q_1$ to be negative and *vice versa*. Professor Fisher alludes to this relationship on p. 410.

[2] Notice that it is the index-number that is greater, with the result that the forward method shows a greater rise (when prices are rising), but a smaller fall (when prices are falling), than the latter.

expenditures in the base year may reasonably be taken as equal for all commodities; the reversal by formula would involve the assumption that expenditures might still be taken as equal after a variable change of prices, but to make the same reasonable balance as in the forward working the selection or weighting of items would have to be reconsidered. The algebraic antithesis is not the logical antithesis.

In passing, it may be remarked that Professor Fisher puts both the *Economist* and *Statist* numbers in his lowest class. (" Worthless index-numbers ") on the ground that they are unweighted as well as condemned by both tests. In fact, they are both weighted by the method (approved by the author) of taking several representatives of the more important groups of commodities. He makes the astonishing statement (p. 345) that the *Statist* number has an upward " bias " of 36 per cent. when 1920 is compared with the base 1867–77. If the forward working is used the index is 251, while the backward working gives 217; if we understand the author's measurement of bias we find it to be $7\frac{1}{2}$ per cent., for $251 = 217 \times (1{\cdot}075)^2$. He is also wrong in classifying the new Board of Trade number as unweighted (formula 21) or arbitrarily weighted (formula 9021) on p. 363.

The second test requires that (1) the formula for measuring change in quantity, as in the measurement of quantity of imports or of production, shall be the same as that used for prices when p and q are interchanged, and (2) that the product of the quantity and price index-ratios shall equal the ratio of costs or expenditures. Thus if the price index was $\Sigma q_0 p_1 / \Sigma q_0 p_0$, the quantity index by (1) should be $\Sigma p_0 q_1 / \Sigma p_0 q_0$, and by (2) the product should equal $\Sigma q_1 p_1 / \Sigma q_0 p_0$, which in this formula would not generally be the case. (1) depends simply on the author's opinion that the nature of the problem or data cannot affect the question which is the best form for an index, together with the statement that measures of quantity and of price come into the working on an equal footing. This assumes that quantities can only be combined on an exchange value basis, and not by weight (as is done in some trade statistics) or by feeding-values (as might be done in cost of living investigations). For (2) there seems to be no justification on general principles; the mean of a product only equals the product of the means of its factors if there is no correlation between them. If we compared a miscellaneous collection of modern books with an equally numerous group a century old and estimated the mean change of height and breadth and area of their pages, it is not self-evident that the product of the first two estimates would equal the

third. A test to which so much importance is attached, one which is used to condemn well-known index-numbers, ought not to have been put forward on so slender a basis as " whenever there is a price of anything exchanged, there is implied a *quantity* of it exchanged . . ." so that the problem of an index-number of the *prices* implies the twin problem of the index-number of the *quantities*. It is interesting to notice that of the eleven index-numbers classed as " superlative " (p. 247), only five satisfy both tests (p. 219).

The formula selected as giving " the ideal index-number " is $\sqrt{\{(\Sigma q_0 p_1/\Sigma q_0 p_0)\ (\Sigma q_1 p_1/\Sigma q_1 p_0)\}}$. There is no doubt that when weighting is proper to the problem, and when the two years concerned ought to affect the result equally, this is a very good method, and in fact it has been recommended by various writers for at least twenty-three years. Professor Fisher's claim, however, that it measures the quantity required correctly to one part in 1000, cannot be seriously sustained. It rests on the fact that in the group he uses to illustrate his analysis (prices and quantities of thirty-six commodities, 1913–18), the measurements he selects as best (by the reversal and other tests) agree very closely. That such formulæ as $L = \Sigma p_1 q_0/\Sigma p_0 q_0$, $P = \Sigma p_1 q_1/\Sigma p_0 q_1$, $\frac{1}{2}(L + P)$, and $\sqrt{L \times P}$ give nearly the same results shows only that in the particular numbers there was little correlation between the price and quantity changes. They may all be equally wrong.

There is much that is interesting and useful, and something that is novel and useful, in the book. In particular the classification and comparison of the formulæ hitherto used, and the prominence given to the necessary algebraic relations of their results, will repay study and further investigation.

A. L. Bowley

Principles of Public Finance, by Hugh Dalton, M.A., D.Sc. (Econ.), Cassel Reader in Commerce in the University of London. (London: George Routledge & Sons, 1923. Pp. vi, 208. 8vo. Price 5*s*. net.)

What precisely do we mean by the " principles " of public finance? The Chancellor of the Exchequer informed our American friends that the principle of British finance is " to pay as we go so far as we can," and the announcement was thought to be worth cabling across the Atlantic. It is an exemplary rule of conduct both in private and public life; but of principles like these there are enough to be found in the maxims of Poor Richard or the

Proverbs of Solomon. We look to a scientific study of finance for something more than the generalities of unorganised common-sense.

Dr. Dalton displays a gay scepticism of the validity and utility of some current opinions on finance which pass with the uninstructed for principles, and in this respect he frequently strikes the right note, and strikes it clearly. He is not always so successful in his positive enunciations. Take, for example, the passage, "The direct money burden of a tax imposed on any object is divided between the buyers and the sellers in the proportion of the elasticity of supply of the object taxed to the elasticity of demand for it. Thus in the particular case where the elasticity of supply is equal to the elasticity of demand, the burden is equally divided, and the price of the object taxed rises by half the amount of the tax." The general reader, for whom the text-book is stated to be primarily intended, will find this proposition too dogmatic, elliptical, and cryptic to command the assent of his reason by itself, and the statesman is not likely to recognise it as a formula serviceable in practice. The pure theory of taxation brilliantly expounded by Professor Edgeworth in the ECONOMIC JOURNAL, is an interesting and instructive exercise in economics, but the wisdom which is the essence of statesmanship in finance must come from the realistic study of finance, the lessons of financial history, the study of financial statistics, the comparative legislation, administration, constitution, and economic condition of different countries. Deductive reasoning and "general principles" are but tools of investigation, and it is the investigation that matters. Principles by themselves are but the grammar of the language which we have to read in that part of the book of life which is concerned with finance, and the more the student of finance can be steeped in the facts the better. Apart from a grounding in economic reasoning, such specific principles of finance as we have do not carry him very far.

The tendency to stone the prophets which is the distemper of the young shows itself at times in Dr. Dalton's discussions. Mill's statement that "there is not the smallest pretence for looking on the old land tax as a payment exacted from the existing race of landlords," is pronounced to be "quite fallacious." We are told that if the tax were repealed, those who now pay it would secure a direct money benefit, and that its incidence, therefore, is upon them. This is obvious enough if we use the word "pay" in its literal sense, but the argument is that the existing race of landlords who have purchased the land subject to tax do not in effect pay it

by carrying its burden. The "fallacy" embodies a truth of importance, the denial of which is futile and misleading. The scorn poured upon the "so-called" doctrine of capitalisation, diffusion and absorption rests upon an imperfect appreciation of their substance. On the subject of equity in taxation we are told that the current principles are only matters of opinion. "It cannot be proved that they are, in fact, equitable, but only that certain people at certain times think them so." Agnosticism of this kind is not very helpful to the student. The social conscience here and now may be imperfectly informed. It is surely better to satisfy it so far as we can pending its improvement than to look upon it as a false guide. The legislator bridging over the gap between law and custom is like the statesman who brings national finance into closer harmony with the national sentiment of fairness for the time being. The assertion that taxation has no general tendency to cause unemployment is much too sweeping. The argument that the receivers of interest on public securities "are not rendering any present *quid pro quo* to the public authority" ignores the fact that they are leaving their capital in the hands of Government and so giving a continuous service. "It is better to exempt houses from local rates than to subsidise them," is another example of a declamation which it might be enlightening to the student to discuss, but which he would do well not to take on trust. The author's desire for a capital levy, resting upon the "principle" that the marginal utility of relief to the less wealthy will exceed the marginal disutility to those who are taxed, confirms our view that assumed "principles" applied to the concrete facts will not always work out according to plan. Perhaps enough has been said to show that the volume is bright and discursive in its polemics rather than a dispassionate guide. The ability of the writer is evident, and we should like to see him employing his talents upon a more realistic study of the subject. In the language of Bottom, we shall desire his better acquaintance.

HENRY HIGGS

Public Finance. By M. E. ROBINSON. With an Introduction by J. M. KEYNES. (Cambridge Economic Handbooks, III.) (London: Nisbet & Co. Cambridge: University Press. Pp. x + 169. Price 5s. net.)

THIS book is the third volume of the Cambridge Economic Handbooks issued under the general editorship of Mr. J. M. Keynes. The first two volumes were reviewed in THE ECONOMIC

JOURNAL for June 1922. Miss Robinson has undertaken the difficult task of treating a very large subject in a very small book, and her work has suffered in consequence. In fact, it may be doubted whether it is possible to write a really satisfactory book of this size on Public Finance. *Some Problems in Taxation* would have been a much more suitable title, for the book, while it is entitled *Public Finance*, really deals mainly with the principles of taxation, and some of the problems connected with the raising and spending of the revenue. The subject of expenditure, to which a considerable space is allotted in most modern books on Public Finance, is therefore only treated incidentally, and financial administration is left on one side altogether. Local finance is necessarily dealt with very inadequately, as only one chapter out of the ten could be devoted to it. The whole problem of international and internal debts is, again, only given one chapter, entitled, "The Post-War Burden of Debt," and in this chapter are included such complicated issues as a levy on capital and a levy on war wealth. Further, there is scarcely any reference made to the public finance of other countries. For some reason which is not very apparent, the problems of national debt and war finance are discussed after local finance.

The principles of taxation are most clearly and carefully explained, and the arguments on all sides of the problems discussed are so fairly balanced that one cannot help wishing that Miss Robinson would just once let herself go. However, she does appear to lean, though very hesitatingly, towards a capital levy. The book will be a difficult one for students who have not already some knowledge of the subject, as the matter is extremely condensed, and there is a singular lack of illustration. It should, however, be useful in helping to draw together and bring into order the results of wider reading. The volume would have been still more useful if it had included a short bibliography.

H. SANDERSON FURNISS

Si j'étais Ministre des Finances, par JEAN LABADIÉ (Paris: Bernard Grasset. 1922. Pp. ix, 274. 8vo.)

THIS fantasia upon public finance appears as a volume in the collection *Politeia, bibliothèque de pensée et d'action politique*. The director, M. René Gillouin, contributes a foreword to the book, which bears on its title-page the device *La politique du nouvel argent*. He informs us that M. Labadié is "not a financier by

profession, but, what is perhaps better, a philosophical and political thinker who understands finance."

A brief summary may suffice. M. Labadié would demonetise gold and silver and call in bank-notes above fifty francs. The holders of these notes would be credited with an equivalent amount in a current account at any bank they chose, and all payments over a given amount (not specified) would take the compulsory form of a cheque, on the face of which must appear not only the amount but the object of the payment, *e.g.* food, clothing, jewellery, etc. Notes of fifty francs and under would be legal tender as petty cash for small payments, but would be valid only for one year. On the due date they would be called in and replaced by new notes, up to a certain maximum for each holder. Any excess above the maximum would be credited to his current account. Small notes may be obtained from the bank by draft on current account, but subject to a discount varying with the frequency and magnitude of such operations. The banking account would serve as a basis for taxation upon revenue and upon expenditure, having regard to the character of the transactions disclosed by the cheques.

M. Labadié expects from measures of this character to establish a purely national money which would be managed by the Minister of Finance in the national interests (emissions to be based on an index-number), and would eliminate the vagaries of foreign exchange. Expenditure upon objects which are not conducive to national economy would be discouraged by sumptuary taxation. The taxpayer's financial position would be fully disclosed by his banking account, and taxation could then be apportioned with close approximation to justice. The reader may be left to form his own conclusions upon the practicability and efficacy of this programme.

The outbreak of intense nationalism fostered by the War and its *sequelæ* inevitably leads to projects of this nature, against which it is hardly necessary to employ the heavy artillery of analytical criticism. But the author has a fine literary sense and a lively imagination which gives some of his attacks upon existing defects of monetary policy the vividness of forked lightning stabbing into the dark. The student of finance who is sufficiently well acquainted with his subject to read the volume in a critical spirit may feel rewarded by the brilliance of these flashes notwithstanding the poverty of the constructive policy.

HENRY HIGGS

Organised Produce Markets. By J. G. Smith, Assistant Professor of Commerce at the University of Birmingham. (Longmans, Green & Co. 1922. Pp. 238. 12*s.* 6*d.*)

All organised markets, in greater or less degree, are hedged about with secrecy. In part, this may be due to the fact that those who enjoy the monopoly of dealing in a restricted field believe it to be in their own interest to make a mystery of their craft. But the chief reason is simply that the technical apparatus of marketing has become so intricate that scarcely anyone but a professional dealer has any opportunity of making himself familiar with it.

Something has been done already by economists (and a great deal more remains to be done) to tear aside this veil of mystery. Whatever may be said for making markets more inaccessible than they need be to many of the outsiders who would like to deal, there is every reason to welcome any serious attempt to expose the machinery of business to the examination of outsiders who wish only to understand.

Professor J. G. Smith has managed to compress into the space of about seventy-five pages a detailed descriptive account of all the principal produce markets of the world. Wheat and cotton naturally claim nine-tenths of his attention, but wool, sugar, coffee, tea, and even cheese, butter and fruit come within the range of his investigations. There is scarcely more than an allusion to rubber. In a series of appendices we are given typical market reports and documents, without, however, any comment or elucidation.

The book being intended primarily for the use of students, we have no right to complain if in these descriptive chapters the very heavy dose of information is administered to us a little ruthlessly. On the contrary, Professor Smith is to be congratulated on the painstaking and methodical way in which he has collected and co-ordinated a whole mass of technical information which is not readily accessible to those who would make business a science and not an art.

It is as difficult to give a fair summary or appreciation of this part of the book as it would be to review a dictionary. But the pill is sugared, though in the middle and not on the outside. The central chapters are given to a discussion of speculation in all its aspects. Professor Smith has a wholesome respect for the services rendered by the expert risk taker, and his treatment of the subject is commendably concrete. But his

interpretation of the facts and his judgments upon them are clearly based upon observation and not upon practice. A treatise on the theory and practice of speculation is badly needed; but it will probably not be written until candidates for a Degree, or at any rate for a Professorship, of Commerce are required to give proof of their ability to make money in speculative markets.

R. TROUTON

Cartesian Economics: the Bearing of Physical Science upon State Stewardship. By FREDERICK SODDY, M.A., F.R.S. (Fleetville, St. Albans: J. W. Vernon. 1922. Pp. 24, 8vo. Price 6*d*.)

THESE two lectures, delivered at Birkbeck College (University of London) on November 10th and 17th, 1921, are published by the Students' Unions of Birkbeck College and the London School of Economics. The fond mother who consulted Dean Swift about what she should do with a poem composed by her child of seven was answered, "Wipe it up and say no more about it." But the temptation to bury this pamphlet among the curiosities of literature must be resisted for two reasons. It may carry more weight than it deserves owing to its author's reputation in other fields of thought, while its effect upon young students (like those who have deemed it worthy of circulation) can hardly fail to be disheartening and misleading. If there be any Unions of Students of Chemistry, and if a distinguished economist lectures to them upon the folly, futility, sham, and make-believe of chemical science as at present understood, they will be well advised to consult Professor Soddy whether publication of the lectures will promote the interests of their subject or enhance the reputation of their lecturer.

Professor Soddy has hard things to say of economists and their teaching, their "crude confusions," their "triumphs of mental instincts over reason, experience, and common-sense," and their lack of scientific spirit. To borrow a phrase from Disraeli, they are silly old people who do not know their own silly old business. Ignorant of the scientific laws of life, economists have not arrived at a true conception of wealth, "whereas I, from the application of the laws of energy to the problem of how men live, have arrived at such a conception." The great thing to remember is that the sun is the source of all light, heat, energy, and life. "Switch off the sun and a world would result lifeless. . . . This is the starting-point of Cartesian

economics." The economist may comfort himself that he has arrived already at this starting-point, and is aware that if the sun were switched off there would be no wealth. As, however, poor foolish humanity has happily no power to meddle with the sun, this indubitable truth has the disconcerting irrelevance of Mr. F.'s aunt—"There's milestones on the Dover Road." But by some chain of thought of which essential links are missing, we are led to conclusions like the following: "Wealth is revenue and it cannot be saved." Usury [by which is meant interest] is immoral. "The consequence of the capitalist's abstinence is that civilisation has got inextricably into the hands of the Jews. Compared with this the wildest profligacy on the part of the original capitalist would have been a relatively minor evil." "During the War the capital of the country [by this he means the National Debt] was increased by some £7,000,000,000, which brings in £350,000,000 a year permanent interest." The gold discoveries were unnecessary. "How much easier it would have been simply to print the money and use the issue to repay the National Debt. But the opportunity passed and the like may not occur again." "There is much making of money by exchange, but no making of wealth or profit—the pluses and minuses are equal."

This is enough to show whither Cartesian Economics lead us. They have not yet reached the point that wealth is the means to an end in utilities, and that capital, interest, and exchange tend to an increase of utility. It is unnecessary in the ECONOMIC JOURNAL to criticise in detail declamatory paradox such as we have quoted. The author claims that his views have "gained in definiteness and clearness" through correspondence with a neo-Marxian friend. Unhappily these qualities are common to Truth and Error alike. It is fatally easy to be short and clear and wrong. If this is "the bearing of Physical Science upon State Stewardship," may Heaven preserve us and our State Stewards from being overborne! It was some obscure impurity in his drug which turned Dr. Jekyll into Mr. Hyde. The Professor has not put pure economic teaching into his test tube, and it is sad to see so distinguished a physicist transformed into a pitiable purveyor of economic fallacies. We are left wondering why such fare has been spread before the students of the University of London, and why they think the lectures deserve to be broadcast. They ought to know that Cartesian Economics is neither Cartesian nor Economics.

HENRY HIGGS

Britain's Decline: her Economic Disorder and its Only Remedy. By JOHN W. LEA. (Birmingham: Cornish Brothers, 39 New Street. 1*s.* net.)

UNDER this melancholy title, which recalls the jeremiads of a bygone age—*Britannia Languens* and its seventeenth-century congeners—Mr. Lea has reprinted four articles contributed to the ECONOMIC JOURNAL, and a number of letters which appeared in the *Birmingham Post*, between the years 1912 and 1922. The articles from the JOURNAL constitute an interesting intensive study of certain "standard" investments "such as an investor in 1896 who aimed at security rather than high yield would have been likely to buy," and were worth reproducing in a more permanent form. The author has worked out the prices and yields of these stocks, mostly home railway investments, over a period of years, and has presented the results in a series of tables and charts which include, for the purpose of contrast, similar foreign and colonial securities. They are very instructive, and the student of these particular investments will feel deeply grateful to Mr. Lea for the immense pains he has taken in compiling his data. When, however, we turn from the figures themselves to the inferences which the author draws from them, there is less ground for satisfaction. The facts to be explained are a sharp decline beginning in 1896 in the home investments, and a less marked falling off in the foreign and colonial. The year in question, it will be remembered, is the one in which prices began to manifest an upward tendency, and the so-called "depression of trade" is supposed to have ended. Various interpretations of the phenomena are reviewed by the author and rejected, but his own solution has varied. In the first three articles, which were written before the war, he is inclined to attribute the fall in value of the home securities to a decline in British industries, notably in the iron trade. In the last article, published in 1917, he lays most stress on the tendency of the British workman to "ca' canny," and quotes a statement of Mr. Flux, the Director of the Census of Production, that "the production per head in the United States was roughly double that shown by the census for the United Kingdom." None of these explanations appear to be convincing. No statistics or charts of the iron or other trades are given to support the alleged decline of British industries. The iron trade, in particular, if we may trust Mr. Macrosty (ECONOMIC JOURNAL, Vol. XV. p. 342), was very good from 1895 to the middle of 1900, with a

slight exception in 1898, due to the engineering dispute of the preceding year. There is no evidence that the laziness of the British workman suddenly became acute in 1896, and the tendency to slack would assuredly not have been confined to home production, but would have extended over production for the foreign trade, which Mr. Lea admits was advancing by "leaps and bounds." This is the crux of Mr. Lea's theories, and he has made no real attempt to get over it. The truth is, that all he has proved is the decline of certain investments, not the decline of Britain or British trade. If the reviewer may be pardoned for referring to his own investigations, the true explanation of the facts would seem to lie in the immense railway and transport development of Germany during the period in question, and her consequent success in exploiting the commerce of the Continent, which made the development of our overseas trade a more profitable field than the home market for investment of British capital.[1] Home railways would necessarily suffer; shipping investments, if Mr. Lea had extended his researches to that department, would probably have told a different tale.

The letters reprinted from the *Birmingham Post* are of an ephemeral character, and Mr. Lea would have been well advised to have condensed their substance into a connected form, and thus avoided tedious repetitions inseparable from contributions to the daily press. With the exception of one letter, which is by another writer and printed as an appendix, the main feature of the correspondence is its weak grasp of monetary theory. Founding himself on a vague definition in the Century Dictionary, and on an inaccurate statement of the late Prime Minister, the author boldly contends that British currency, as apart from bank credits, has not been inflated. On the same page in which he makes this rash statement he notes that gold is at a premium of 27 per cent. as compared with currency notes (p. 39). As a matter of fact, currency has increased in a greater proportion than credit since 1914. Mr. A. H. Gibson notes (*British Finance*, 1914–1920, edited by Professor Kirkaldy, p. 274) that commercial bank deposits increased between June 1914 and December 1920 by 1328 millions, or 124 per cent., while currency increased in the same period by 265 millions, or 207 per cent.

[1] ECONOMIC JOURNAL, Vol. XXVI. p. 161. This is a fitting opportunity to correct an unfortunate slip in the article cited, for which the writer is responsible. The two last sentences on p. 161 ("These figures ... foreign markets") are misplaced. They really refer to the detailed investigation which commences on p. 163, and not to the prefatory figures in pp. 161 and 162.

Mr. Lea's view that inflation does not begin till "demand is exceeded" is a popular misconception, which politicians have exploited for propagandist purposes, but to which no serious economist would subscribe.

As for the author's simple remedy for the present troubles—more production—it is perhaps sufficient to say, in the words of Dr. Macnamara in the House of Commons, "It's no use making goods unless you can sell them." The superior production of the United States has not saved that country from the evils of unemployment. The problem is largely financial and international in character, and not a mere question of the laziness or the reverse of the workman. Mr. Flux's statement, which the author quotes so frequently, does not, I take it, bear the construction which he puts upon it. The superior production of the United States is due partly to natural conditions, and partly to the more extended use of labour-saving machinery. No doubt Trade Union regulations which tend to restrict production, and the mistaken notion of the British workman that he benefits his fellows by slacking, are factors that need to be strenuously combated. But their influence may easily be exaggerated, and it can hardly be of paramount importance, or our foreign trade would not have had so successful a history in the recent past.

H. H. O'FARRELL

Europe after the World War: a Financial and Economic Survey. (Volume First.) By W. R. LAWSON. (London: The Financial News, 1921. Pp. xi + 276. Price 7s. 6d. net.)

THIS book hardly bears out the promise of its title; for, frankly, it is a work of "polemical" rather than "political" economy. And this is a pity, for a well-reasoned survey of the post-war financial and economic situation in Britain and Europe would be most valuable. The author has evidently strong opinions and dislikes, and is not afraid to voice either. The book has four parts, the first dealing with Armageddon, and the others with its Industrial, Financial and Commercial Effects respectively. The author has collected a good deal of information, and puts forward some interesting views; and there are some interesting, if not always effective, comparisons with past wars. As a controversial work it may not be able to come successfully through the acid test of debate. For instance, to say (p. 79) that "disputes (during the war) were

more frequent than ever," if by disputes is meant strikes, will scarcely hold water; and the time lost by strikes during the four war years was far less than in the four pre-war years, and indeed less than in the one year 1912 alone. Again, comparisons with past wars are apt to be vitiated by failure to allow for necessary differences in the conditions and scale of the conflicts. Or, again, it is by no means impossible that the "military muddles" of the Crimea were in part due to a too cheese-paring attitude on the part of the "brilliantly shining" financial control. A practised controversialist would no doubt multiply these instances.

N. B. DEARLE

Prices and Wages: an Investigation of the Dynamic Forces in Social Economics. By PERCY WALLIS and ALBERT WALLIS. (London: P. S. King & Son, 1921. Pp. xii + 449.)

THE authors base their general theorems on the idea that social evils are the results not of "evil-doers or tyrants," but of "want of understanding." This is in a sense a universalisation of the idea of economic friction, and this want of understanding or information probably plays a more important part than is generally supposed. The authors argue that the trained economist suffers from lack of data, and that the business man cannot give the time to the study, but is "admittedly drifting . . . and astutely avoiding shoals and shipwreck . . . by ceaseless watchfulness." They therefore attempt to found a "theory of economics upon numerical data from business statistics."

The result is the development of a labour theory of value, or rather price. "Prices," they say in the preface, "are really a natural quantity of commodities dependent upon the amount of labour necessary to obtain them," and they work this idea out to the conclusion that prices "are always brought back to the natural standard of value as determined by the labour price of gold, and in normal times prices never depart far from that basis." The work contains a large amount of numerical and statistical data, illustrated by tales and diagrams. It considers the National Income and its Division, and such fundamental subjects as Capital, Price (with special chapters on prices of crops and prices in the U.S.A.), Gold and Wages. A further chapter deals with Profit and Unemployment, and in this connection the concluding paragraph of the book (p. 449) argues

that "the price being unalterable, profit properly so called" can only be obtained if there is a percentage of unemployed labour to cut down the labourer's share of production. This they describe as "the essential defect of our present industrial system." Treatment of Rent and Interest and Trade Fluctuations precedes a review of the general conclusions to be drawn from the data.

N. B. DEARLE

A Short History of British Agriculture. By JOHN ORR. London: Humphrey Milford, Oxford University Press, 1922. Pp. 96. Price 2*s.* 6*d.* net.

A History of Land Tenure in England. By J. GHOSH. Calcutta: Kar, Majumder & Co., 1922. Pp. 280 + 2.

To survey the history of British agriculture from the earliest times to the present day, and to do it in ninety-six pages, is a difficult task, and one which no author could hope to accomplish without exposing himself to the charge of inadequate treatment in regard to some part at least of his work. On the whole Mr. Orr has succeeded in regard to the period after 1700, and some sections of this latter part of the book are quite excellent, but the first fifty pages will be a disappointment to those who know the quality of the author's other writings on agricultural matters. More especially in the first part of the book, but occasionally also in the account of the eighteenth and nineteenth centuries, Mr. Orr's solution of the difficult problem of knowing what to include and what to exclude, at least as regards the background of political history, is not always very happy. Some vague and doubtful facts, too, appear as precise certainties—for example, we are told that "between 1455 and 1607 the area of land enclosed amounted to 516,673 acres," without a word to indicate that this figure is only Dr. Gay's very hypothetical estimate; and Mr. Orr's statements that "the average yield of wheat in 1770 was 23 bushels per acre," that "in 1880 it was 28 bushels," and that "it is now about 30," are unaccompanied by any explanation of the fact that the first of these figures must be a rough estimate, while the two others are based on the official agricultural statistics. In general one wishes Mr. Orr had been a little more geographical—differences between one part of the country and another might have been noted with advantage. For the rest, the book is enriched by a number of interesting quotations from writers of various periods—some of them by

no means well known—and the illustrations, of which there are twenty-eight, are quite first-rate.

Dr. Ghosh is Principal of Anandamohan College, Mymensingh, and his book is part of the thesis which he submitted for the doctorate (he does not say at what university) in 1910. It reveals the author as a sensible man who can arrange his matter simply and clearly, and, for a book written by one to whom English is not his native tongue, it is remarkably well written. But unfortunately Dr. Ghosh's merits as a writer are spoilt by defective scholarship. Though he can quote a great variety of original authorities—for example, Beowulf, Saxon charters, Walter of Henley, Chaucer, Langland, Sir Thomas More, Tudor statutes, Tusser, Arthur Young, and Sir Rider Haggard—and though he knows such out-of-the-way facts as the purpose and failure of Dolben's Act, his blunders are serious. He thinks, for instance, that "the feudal lords were bound in the days of the Conqueror to place on the field if required a well-armed and equipped force of 60,000 men" (p. 98), and that "the extent of land constituting a knight's fee was twelve plough lands, equal, according to some authorities, to 800, and according to others, to 680 acres" (p. 87). Apart from actual blunders, probable, and sometimes also doubtful, things are stated as certainties. "Not a single cargo of corn," says Dr. Ghosh, "was exported from England in the six hundred years that intervened between the departure of the Romans and the establishment of Norman rule" (p. 67). If we really knew as much history as that, how happy we should be! Dr. Ghosh apologises for the fact that he has not been able to bring his book up to date since it was written in 1910. But even in 1910 it was hardly up to date to quote Hallam as an authority on the status of the Domesday sokemen. And his remarks about folkland reveal ignorance of the fact that Sir Paul Vinogradoff had "deprived the English nation of its land" in 1893.

REGINALD LENNARD

Studies in European Co-operation, by C. F. STRICKLAND (pp. 166). *The Co-operative Movement in France and Italy*, by OTTO ROTHFIELD (pp. 87). *Co-operation in Germany and Italy*, by M. L. DARLING (pp. 191). (London : P. S. King & Son.)

THESE publications are in substance reports on visits by representatives of the Indian Government to Europe for the study of co-operation. Mr. Strickland's inquiries covered

Holland, Belgium, Italy and England. Mr. Rothfield confines himself to France and Italy, whilst Mr. Darling deals mainly with Germany and Italy, touching briefly on Ireland.

One cannot help being impressed by the great variety of forms in which the co-operative idea finds expression in different countries, and it is interesting to note that in each country co-operation seems to be particularly successful in some special direction. In England consumers' stores overshadow all other forms. In Holland co-operative agriculture and dairying predominate. In Italy "Societies of Production and Labour" make greater headway than in the other countries under review. Co-operative banking has reached big proportions in Germany, whilst "Producers' Societies" would appear to find a more congenial soil in France than elsewhere. Increased facilities for intercourse between co-operators of all countries tend, however, to stimulate the spread of ideas which have proved successful in any country. In all the countries dealt with in these reports we find the "Rochdale" Consumers' Society, and, except in England, co-operative banking has taken root. The Producers' Society, which is peculiarly French, finds imitators in all countries. Co-operative agriculture and dairying is becoming general, for even in England it has made some progress. The transplantation of ideas involves as a rule considerable modifications in the practical application. Probably no movement discloses to the same extent the great variety in characteristics and conditions of the working populations of different countries. Why, for instance, have Co-operative Labour Associations, covering "the smallest co-partner workshop to a metallurgical industry owning dockyards and arsenals, or a mining syndicate enjoying a national monopoly, and the gang of navvies who undertake enterprises of increasing skill and grandeur," taken such a hold in Italy and made such little headway elsewhere? Why have Agricultural Co-operation Banks achieved such dimensions in Germany, Italy and elsewhere on the Continent and absolutely failed to take root in England? Whilst these reports do not pretend to give definite answers to such questions, they certainly provide valuable material for the student to work upon. The reports are so crowded with facts covering such a great variety of co-operative activities that it is impossible in a brief review to pretend to do justice to what has been collected. The ground covered includes Village Banks, Urban Banks and the relation of these to Central and State Banks, Supply and Sale Societies, Mutual Insurance

Societies, Electricity Societies, Co-operative Labour Societies, Agricultural Societies, Co-operative Housing and Building Societies, and others.

A feature often found in continental co-operation is the division of societies not only according to their commercial or economic functions, but also according to the religious or political views of the members. There are Catholic and Protestant, Socialist and non-Socialist Societies, and so on. We have up to now escaped this division in Great Britain, but the action of the Co-operative Consumers' Movement in identifying itself closely with the Socialist and Labour Party in this country may possibly create the same division here in the near future.

As to the effect of these political and religious influences, Mr. Strickland tells us that " the enthusiasm or fanaticism lent by these resolves are outweighed by the disunion and idle competition which they introduce. A society embracing all communities has sometimes the hardest struggle, but wins the most striking victory."

The relation of the movement to Governments varies in different countries. In Italy, for example, " millions of lire have been poured out " to promote its progress. In Germany progress " owes nothing (except to a small extent in Housing Societies) either to political rivalry or to public grant." Signor Luzzatti, the founder of the movement in Italy, considers the " indiscriminate distribution of subsidies to be highly demoralising." The absence of Government subsidies in Germany has evidently not retarded development, for we learn that in the two years following the war 10,000 Co-operative Societies were opened. Mr. Darling expresses the view that Germany is " a splendid example of self-help, as Italy is a warning of the danger of State aid." On the other hand, Mr. Rothfield tells us that in regard to France, " the great results achieved by co-operation were achieved only because of State aid and with the help of State officials."

The " total number of Societies at present in Germany (June 1921) must be at least 47,000. Membership is difficult to calculate," but it " may be put at about seven million families, embracing between twenty-five and thirty million souls, or half the present population of Germany."

The chief object of these reports is to stimulate developments on right lines in India, and we are told that there is " no reason whatever why the Punjab money-lender should not in a few years be a fragrant memory no longer visible in the flesh."

Whilst they do not in some respects take the place of Mr. Wolff's well-known and much-appreciated work on the subject, these reports certainly provide good material for the study of the more recent co-operative developments in Europe, and their production is a real service to those interested.

HENRY VIVIAN

The Prevention and Relief of Distress: A Hand-book of Information respecting the Statutory and Voluntary Means available for the Relief of Distress and the Improvement of Social Conditions. (King & Son and Charity Organisation Society. 2*s*. 6*d*.)

THE Charity Organisation Society stood originally for two new and unpopular truths—the superiority of co-operation over isolation in charitable work, and the superiority of knowledge over ignorance. These doctrines are now so generally accepted in theory, however far short of them we may often fall in practice, that they often appear to us truisms, and there is some danger that the debt we owe to the Charity Organisation Society for their discovery and propagation may be forgotten.

Both in popular conception, and in some of its own utterances, however, the Charity Organisation Society tends to be closely associated with another tenet on which modern opinion is much less unanimous, namely, that everyone is primarily responsible for his own fate except in so far as he shares that responsibility with his relations, that is, individualism modified by a high doctrine of the family. This, however, was not the Society's discovery or invention, but was the general opinion among "enlightened" people at the time it arose. There is much to be said for this point of view, but if the Charity Organisation Society, under that or any other name, is to have the great future it might have as a corporate endeavour to relieve suffering and prevent the demoralisation often resulting from ill-considered and spasmodic benevolence, it must cease to identify itself with any one-sided social doctrine and enlist the aid of socialists and individualists alike and representatives of all intermediate shades of thought.

The little book recently brought out by the Charity Organisation Society, *The Prevention and Relief of Distress*, is, therefore, interesting, not only for the very valuable information it contains for the guidance of social workers, but still more in that it is Sir Charles Loch's introduction to the Annual Charities

Register and Digest, first issued in 1891, " brought up to date," and therefore should indicate any changes in the general attitude of the Society which have taken place in the last thirty-one years. On the whole it is disappointing to have to record that these changes are small. There are many modifications in the phraseology used which make it more acceptable to-day, and doubtless show a softened attitude, but there is practically no bold departure from a one-sided position, or even acknowledgment that it is not shared by all thoughtful and experienced workers. Sometimes the changed wording is not an unmixed advantage; the present title, " The Prevention and Relief of Distress," is certainly at first sight preferable to the original " How to Relieve Cases of Distress," but it makes omission of any treatment of such subjects as housing, education, or conditions of employment, all the more marked. A book of this kind, which is really confined to the information required by the social physician in his treatment of individual cases, is most valuable, but its compilers should be careful not to imply that there are not important causes of distress too general to be dealt with by these means. Unfortunately a section of " How to Relieve Cases of Distress," limiting the scope of the work and acknowledging the importance of the field outside, is omitted from the present booklet.

The chief defect of the individual work of the Charity Organisation Society is probably lack of enterprise in dealing with problems difficult or impossible of complete solution. The admirable ideal of forming a plan in every case brings with it the temptation to turn away from those cases where no plan can readily be formed. This must be the explanation of the disproportionately small space given to distress due to unemployment, and the entire disregard of the effects of the present depression of trade in the chapter headed " Distress arising out of the War." It is rightly assumed that long and widespread distress makes statutory provision indispensable, but wrongly implied that voluntary benevolence has in such case little to do but step aside. In like manner, while acknowledging the need for close co-operation between Poor Law Authorities and bodies administering voluntary aid, it implies that those in distress can be separated into those who are and those who are not " above Poor Law level," the former being the sole concern of charity. The statement that " Merit has nothing to do with the claim to Poor Law relief " is most misleading; it is true that the vicious have the right to be kept alive in the workhouse, but merit has a very great deal to do with outdoor relief, and the problems before

a Board of Guardians are much more similar to those before a Charity Organisation Society than this book would suggest. The voluntary body should have more elasticity and more time for detail, and is therefore most required in abnormal cases, whether good or bad, but there is no ultimate reason why its efforts should not be exercised on behalf of many families whose need is so prolonged that most of the material help has to come from the Poor Law.

It is hard to be critical without appearing hostile, but it is just because of the great achievements and far-reaching possibilities of the Charity Organisation Society that its deliverance from unnecessary limitations is important. We are encouraged to expect periodic revision of the handbook; we may hope that this will mirror a more rapidly developing policy. In the meantime all social workers should possess this book, though, as is made clear, the facts as given relate to London, and readers in the English provinces, and still more in Scotland, will have to make their own alterations.

ANNE ASHLEY

Social Administration, Including the Poor Laws. By JOHN J. CLARKE, M.A., F.S.S. (Sir Isaac Pitman & Sons, Ltd.)

IT seems ungenerous not to be enthusiastic about this little book, which supplies under one cover a mass of important information, much of it not previously available in any compact form. The comment and discussion with which the information is interspersed, however, though characterised often by common sense, seldom seems to imply original or profound reasoning, and the language in which it is expressed is sometimes so far from clear or exact that it is hard to ascribe these qualities to the thought behind it. Even the information itself sometimes suffers from being insufficiently digested, though it is so much more valuable than its setting that one is inclined to wish it were presented in the form of an encyclopædia. The index is too exhaustive to be convenient; the practice of putting after each subject a list of all the pages where its name is so much as mentioned (and some, for there are apparently misprints, where it is not mentioned) is not conducive to rapidity of reference.

The first two appendices are particularly interesting: the one sets out in parallel columns the chief dates in the history of the Poor Law in England and Scotland respectively; and the other shows the main recommendations of the Royal Commission

on the Poor Law of 1909—first those that were unanimous, and then those of the majority and the minority respectively—with against each the extent to which, if at all, it has been carried out. The third appendix is curious : why, in showing " opportunities for social service," should it be " presumed that there is no desire to seek the suffrages of the electors " ? The great local governing bodies are among the most important fields of social service, and we ought to be able to assume that among public-spirited men and women there is a widespread desire and ambition to enter these fields, for which it is normally necessary " to seek the suffrages of the electors."

ANNE ASHLEY

Die Hauptströmungen der Sozialistischen Gedankenwelt. By Dr. BÉLA FÖLDES. (Berlin: Otto Elsner Verlagsgesellschaft. 1923. Pp. viii + 414).

THE task undertaken in this work by Professor Béla Földes is to trace the many " streams of tendency " represented by Socialistic theorists in various countries, rather than to discuss concrete Socialistic systems. It is a work of wide and deep research, marked by clear and vivid exposition and conscientious analysis, as well as laudable objectivity. For the most part, however, it is a summary of an earlier study, and it is unfortunate that the author has not taken the opportunity of giving us some adequate review of the developments of Socialistic thought and experiment during, and still more since, the Great War. Except for a somewhat cursory discussion of Bolshevism, the inclusion of which in his review may be open to criticism, Dr. Földes practically stops at 1910, almost ignoring the tremendous testing time to which Socialistic theories, programmes, and organisations have been exposed during the later years. Nor can his forecast in the concluding chapter be accepted as an adequate statement of the momentous transition through which society and social theories are to-day passing. We are told how Socialism has dropped some dogmas and modified others ; we are reminded that the present needs of the world are peace and increased productivity, if our present civilisation is to be saved, and that the future holds new tasks which mankind will neglect at its peril : but truisms like these do not carry us far, and one looks in vain for the careful and searching examination of the attitude of Socialism to the problems presented by a disorganised and demoralised world which would have given to this work real practical value.

This is not to say that Dr. Földes' book is superfluous. As a piece of historical and theoretical exposition it is deserving of very high praise, for its author shows a rare mastery of sources and detail, and while many other works have covered the same ground, it is questionable whether any has done it more thoroughly. The bibliography given at the close is ample though not exhaustive.

W. H. DAWSON

NOTES AND MEMORANDA

NOTES ON THE MATHEMATICAL THEORY OF PRODUCTION

THE following pages have close relation to Mr. W. E. Johnson's investigations on *The Pure Theory of Utility Curves*, published in No. 92 of the ECONOMIC JOURNAL [December 1913], and their object is to simplify as much as seems possible the mathematical side of this article. Professor F. Y. Edgeworth is of course in the right when he says: "This (Mr. Johnson's) work appears to us to be in respect of mathematical technique a unique contribution to the subject" (ECONOMIC JOURNAL, No. 97, p. 49). But Professor F. Y. Edgeworth is not less in the right when (*l.c.* p. 41) he characterises Mr. Johnson's writing as "exceedingly concise." This conciseness goes so far, that some of the mathematical propositions are not proved; so, for instance, on p. 509 we read: "The discriminant so obtained can be shown to be . . ."; on p. 510: "The following relations can be proved. . . ." But the demonstrations are not given, and, in consequence, considerable pure mathematical work is left to the reader. In spite of the maxim, "Il ne s'agit pas de faire lire, mais de faire penser," we think that mathematical problems should not be given to economists to solve, and that mathematical economics should be treated as simply as possible, with all results worked out in detail. The reason why Mr. Johnson omits some of the proofs is obvious: they would be too long and tiresome to follow, and occupy too much space in an "economic" article. Now, we will try to show that the subject can be treated in a more simple, *but at the same time more general way*, that does not require too complicated mathematics.

We will follow Mr. Johnson's notations as closely as possible. According to these notations, p is the product; $a, b, c, e, \ldots$ the n factors; $\alpha, \beta, \gamma, \varepsilon, \ldots$ their respective prices; μ— the cost of production; $f(a, b, c, e, \ldots)$, the production function.

Consequently we have:

$$p = f(a, b, c, e, \ldots) \quad \ldots\ldots\ldots\ldots \quad (1)$$

$$\mu = a.\alpha + b.\beta + c.\gamma + e.\varepsilon + \ldots\ldots \quad (2)$$

Now we shall introduce $n - 1$ (one less than the number of factors) independent variables, or *parameters* (or perhaps "general-

ised co-ordinates "), u, v, w, . . . and take in lieu of equation (1) the following system :

$$\left.\begin{array}{l} a = f_a(u, v, w, \ldots; p) \\ b = f_b(u, v, w, \ldots; p) \\ c = f_c(u, v, w, \ldots; p) \\ e = f_e(u, v, w, \ldots; p) \\ \ldots\ldots\ldots\ldots \\ \ldots\ldots\ldots\ldots \end{array}\right\} \quad . \quad . \quad . \quad . \quad (1')$$

The functions f_a, f_b, f_c, f_e, being so chosen that the equation resulting from the elimination of u, v, w, from the equations (1′) should be identical to equation (1).

We may notice that the system (1′) leads to a clear conception of "coefficients of production" as adopted by Professor Pareto; these coefficients being :

$$a_p = \frac{\delta a}{\delta p} = \frac{\delta f_a}{\delta p}, \; b_p = \frac{\delta b}{\delta p} = \frac{\delta f_b}{\delta p}, \quad . \quad . \quad . \quad . \quad (3)$$

And this conception seems to be as natural in the case of what is called "variability of coefficients of production," as in the case of the constant coefficients of Walras (this point being mentioned by Professor F. Y. Edgeworth, *l.c.* p. 56).

The problem to solve is : *minimising the cost of production* (μ) *for a given amount* (p) *of product.*

From (2) we see that μ is a linear function of a, b, c, e . . . : but the problem will not be more difficult if we adopt for representing the cost of production any function f_μ of a, b, c, e . . . , and the prices $\alpha, \beta, \gamma, \varepsilon$, . . . and consequently write in lieu of (2) the more general equation :

$$\mu = f_\mu(a, b, c, e, \ldots; \alpha, \beta, \gamma, \varepsilon, \ldots) \quad . \quad . \quad . \quad (2')$$

After substituting a, b, c, e . . . , from (1′) in (2′) μ becomes a function of the $n - 1$ independent variables u, v, w . . . , the minimum conditions for which are :

$$\frac{\delta\mu}{\delta u} = 0, \; \frac{\delta\mu}{\delta v} = 0, \; \frac{\delta\mu}{\delta w} = 0, \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad (4)$$

and

$$d^2\mu > 0,$$

or

$$\left.\begin{array}{l} \frac{\delta^2\mu}{\delta u^2} du^2 + 2\frac{\delta^2\mu}{\delta u \delta v} du dv + 2\frac{\delta^2\mu}{\delta u \delta w} du dw + \ldots \\ \quad + \frac{\delta^2\mu}{\delta v^2} dv^2 + 2\frac{\delta^2\mu}{\delta v \delta w} dv dw + \ldots \\ \quad\quad + \frac{\delta\mu}{\delta w^2} dw^2 + \ldots \\ \ldots\ldots\ldots\ldots\ldots\ldots > 0 \end{array}\right\} \quad . \quad . \quad (5)$$

Adopting the usual notations

$$\frac{\delta^2\mu}{\delta\mu^2} = \mu_{uu}, \quad \frac{\delta^2\mu}{\delta u \delta v} = \mu_{uv}, \ \ldots$$

we can write the following inequalities, that are known to be equivalent to condition (5), viz. :

$$\mu_{uu} > 0, \qquad \begin{vmatrix} \mu_{uu} & \mu_{uv} \\ \mu_{uv} & \mu_{vv} \end{vmatrix} > 0, \quad \begin{vmatrix} \mu_{uu} & \mu_{uv} & \mu_{uw} \\ \mu_{uv} & \mu_{vv} & \mu_{vw} \\ \mu_{uw} & \mu_{v\mu} & \mu_{ww} \end{vmatrix} > 0, \ \ldots \qquad (6)$$

Equations (4) determine $u, v, w, \ldots$ as functions of $p, \alpha, \beta, \gamma, \varepsilon, \ldots$; on substituting them in (1′) and (2′) we obtain the complete solution of the minimum problem proposed.

Now let us, starting from this minimum state, vary the *given* amount of product p by dp, and some (not necessarily all) of the *found* quantities $u, v, w, \ldots$ by $du, dv, dw, \ldots$ and let us see how much the cost of production (μ) will consequently vary.

As μ is a function of $u, v, w, \ldots$ involving explicitly p, we have :

$$d\mu = \frac{\delta\mu}{\delta u} du + \frac{\delta\mu}{\delta v} dv + \frac{\delta\mu}{\delta w} dw + \ldots + \frac{\delta\mu}{\delta p} dp.$$

Taking account of (4) we find :

$$d\mu = \frac{\delta\mu}{\delta p} \cdot dp,$$

or, with Mr. Johnson's notation :

$$k = \frac{d\mu}{dp} = \frac{\delta\mu}{\delta p} \quad . \ . \ . \ . \ . \ . \ . \qquad (7)$$

"The constant $\frac{1}{k} = \frac{dp}{d\mu}$ is well described by him [Mr. Johnson] as the marginal efficiency of money," says Professor Edgeworth (*l.c.* p. 52). Should we adopt the linear form (2) of the cost of production function, we would have from (7) :

$$k = \frac{\delta a}{\delta p} \alpha + \frac{\delta b}{\delta p} \beta + \frac{\delta c}{\delta p} \gamma + \frac{\delta e}{\delta p} \varepsilon + \ldots$$

or, using the "coefficients of production" (3) :

$$k = a_p \alpha + b_p \beta + c_p \gamma + e_p \varepsilon + \ldots$$

The variations $du, dv, dw, \ldots, dp$ were until now arbitrary and independent of one another. Let us now assume that in the new state $(u + du, \ v + dv, \ w + dw, \ldots, \ p + dp)$ the

minimum conditions (4) for the quantities $u, v, w, \ldots$ that are subject to variation, are still satisfied, and let us investigate the rate of variation $\frac{dk}{dp}$ of the quantity k (this being the most important novelty contained in Part IV of Mr. Johnson's writing).

k being a function of $u, v, w, \ldots$ involving p explicitly, we have:

$$dk = \frac{\delta k}{\delta p}dp + \frac{\delta k}{\delta u}du + \frac{\delta k}{\delta v}dv + \frac{\delta k}{\delta w}dw + \ldots \quad . \quad . \quad . \quad (8)$$

Conditions (4) holding good (for the quantities $u, v, w, \ldots$ that are supposed to vary alone) we have:

$$\left.\begin{array}{l} \frac{\delta^2\mu}{\delta u\delta p}dp + \frac{\delta^2\mu}{\delta u^2}du + \frac{\delta^2\mu}{\delta u\delta v}dv + \frac{\delta^2\mu}{\delta u\delta w}dw + \ldots = 0 \\ \frac{\delta^2\mu}{\delta v\delta p}dp + \frac{\delta^2\mu}{\delta u\delta v}du + \frac{\delta^2\mu}{\delta v^2}dv + \frac{\delta^2\mu}{\delta v\delta w}dw + \ldots = v \\ \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \\ \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \end{array}\right\} \quad . \quad . \quad (9)$$

For the sake of brevity, let us write:

$$\left.\begin{array}{l} \frac{\delta^2\mu}{\delta p^2} = \mu_{pp}, \ \frac{\delta^2\mu}{\delta p\delta u} = \mu_{pu}, \ \frac{\delta^2\mu}{\delta p\delta v} = \mu_{pv}, \ \ldots \\ \text{and} \\ \frac{dk}{dp} = k_i', \ \frac{du}{dp} = u_i', \ \frac{dv}{dp} = v_i', \ \frac{dw}{dp} = w_i', \ \ldots \end{array}\right\} \quad . \quad (10)$$

The index i showing that it is but the first i of the $n - 1$ quantities $u, v, w, \ldots$ that are supposed to vary. If, "pour fixer les idées," we take for a moment $i = 3$, so that it is only u, v, w that vary, equations (7)–(10) will readily give us:

$$\left.\begin{array}{l} k_3' = \mu_{pp} + \mu_{pu} \cdot u_3' + \mu_{pv} \cdot v_3' + \mu_{pw} \cdot w_3' \\ 0 = \mu_{pu} + \mu_{uu} \cdot u_3' + \mu_{uv} \cdot v_3' + \mu_{uw} \cdot w_3' \\ 0 = \mu_{pv} + \mu_{uv} \cdot u_3' + \mu_{vv} \cdot v_3' + \mu_{vw} \cdot w_3' \\ 0 = \mu_{pw} + \mu_{uw} \cdot u_3' + \mu_{vw} \cdot v_3' + \mu_{ww} \cdot w_3' \end{array}\right\} \quad . \quad . \quad (11)$$

These equations give easily the following values for k_3' and w_3':

$$\begin{vmatrix} \mu_{pp} & \mu_{pu} & \mu_{pv} & \mu_{pw} \\ \mu_{pu} & \mu_{uu} & \mu_{uv} & \mu_{uw} \\ \mu_{pv} & \mu_{uv} & \mu_{vv} & \mu_{vw} \\ \mu_{pw} & \mu_{uw} & \mu_{vw} & \mu_{ww} \end{vmatrix} = k_3' \cdot \begin{vmatrix} \mu_{uu} & \mu_{uv} & \mu_{uw} \\ \mu_{uv} & \mu_{vv} & \mu_{vw} \\ \mu_{uw} & \mu_{vw} & \mu_{ww} \end{vmatrix} \quad . \quad . \quad . \quad (12)$$

$$w_3' \begin{vmatrix} \mu_{vu} & \mu_{uv} & \mu_{uw} \\ \mu_{uv} & \mu_{vv} & \mu_{vw} \\ \mu_{uw} & \mu_{vw} & \mu_{ww} \end{vmatrix} = - \begin{vmatrix} \mu_{uu} & \mu_{uv} & \mu_{pu} \\ \mu_{uv} & \mu_{vv} & \mu_{pv} \\ \mu_{uw} & \mu_{vw} & \mu_{pw} \end{vmatrix} \quad . \quad . \quad . \quad (13)$$

Should only two of the quantities $u, v, w, \ldots$ vary, say u and v, then we would have just as before instead of (11):

$$\left.\begin{aligned} k_2' &= \mu_{pp} + \mu_{pu} \cdot u_2' + \mu_{pv} \cdot v_2' \\ 0 &= \mu_{pu} + \mu_{uu} \cdot u_2' + \mu_{uv} \cdot v_2' \\ 0 &= \mu_{pv} + \mu_{uv} \cdot u_2' + \mu_{vv} \cdot v_2' \end{aligned}\right\} \quad . \quad . \quad . \quad . \quad . \quad (11')$$

Subtracting (11) from (11′) we find:

$$\begin{aligned} k_2' - k_3' &= \mu_{pu}(u_2' - u_3') + \mu_{pv}(v_2' - v_3') - \mu_{pw} \cdot w_3' \\ 0 &= \mu_{uu}(u_2' - u_3') + \mu_{uv}(v_2' - v_3') - \mu_{uw} \cdot w_3' \\ 0 &= \mu_{uv}(u_2' - u_3') + \mu_{vv}(v_2' - v_3') - \mu_{vw} \cdot w_3' \end{aligned}$$

whence:

$$(k_2' - k_3') \begin{vmatrix} \mu_{uu} & \mu_{uv} \\ \mu_{uv} & \mu_{vv} \end{vmatrix} = - w_3' \begin{vmatrix} \mu_{pu} & \mu_{pv} & \mu_{pw} \\ \mu_{uu} & \mu_{uv} & \mu_{uw} \\ \mu_{uv} & \mu_{vv} & \mu_{vw} \end{vmatrix} \quad . \quad . \quad (14)$$

Equations (13) and (14) give by multiplication:

$$(k_2' - k_3') \begin{vmatrix} \mu_{uu} & \mu_{uv} \\ \mu_{uv} & \mu_{vv} \end{vmatrix} \cdot \begin{vmatrix} \mu_{uu} & \mu_{uv} & \mu_{uw} \\ \mu_{uv} & \mu_{vv} & \mu_{vu} \\ \mu_{uw} & \mu_{vw} & \mu_{ww} \end{vmatrix} = \begin{vmatrix} \mu_{pu} & \mu_{pv} & \mu_{pw} \\ \mu_{uu} & \mu_{uv} & \mu_{uw} \\ \mu_{uv} & \mu_{vv} & \mu_{vw} \end{vmatrix}^2 \quad . \quad (15)$$

From (15) and (6) we conclude that

$$k_2' > k_3'$$

and generally

$$k_i' > k_{i+1}' \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad (16)$$

This is one of Mr. Johnson's theorems, *but generalised*, as it is not some of the factors $a, b, c, \ldots$ that are supposed to vary (as assumed by Mr. Johnson), but some of the parameters, $u, v, w, \ldots$ from which the factors depend, according to (1′).

If we assume

$$\left.\begin{aligned} b &= u,\ c = v,\ e = w, \ldots \\ a &= f_a(b, c, e, \ldots; p) \end{aligned}\right\} \quad . \quad . \quad . \quad . \quad . \quad (17)$$

this being a special case of our general system (1′), we obtain Mr. Johnson's special theorem, enunciated by him as follows: " the above (16) inequations are equivalent to the economic statement that 'any increase of money tends less and less to diminish its marginal efficiency as the variety of factors upon which it is expended increases' "—(*l.c.* p. 510). "Another elementary account can be given of the significance of the various k' values "—so begins § 27 of Mr. Johnson's writing.

In our exposition this "account" (again generalised) is presented as follows:

Let $$\varphi_i(u_i', v_i', w_i', \ldots)$$

stand for the quadric:

$$\begin{aligned}\mu_{uu}u_i'^2 + 2\mu_{uv}u_i'v_i' + 2\mu_{uw}u_i'w_i' + \ldots \\ + \mu_{vv}v_i'^2 + 2\mu_{vw}v_i'w_i' + \ldots \\ + \mu_{ww}w_i'^2 + \ldots\end{aligned}$$

Inequalities (6) are then the well-known condition for $\varphi_i > 0$.

Using the last three equations (11) we have:

$$\mu_{pu}u_3' + \mu_{pv}v_3' + \mu_{pw}w_3' + \varphi_3(u_3', v_3', w_3') = 0,$$

and again, using the first equation:

$$k_3' = \mu_{pp} - \varphi_3'(u_3', v_3', w_3');$$

and, of course, generally:

$$k_i' = \mu_{pp} - \varphi_i(u_i', v_i', w_i', \ldots)$$

Should all the $n - 1$ quantities $u, v, w, \ldots$ vary, we would have:

$$k_{n-1}' = \mu_{pp} - \varphi_{n-1}(u_{n-1}', v_{n-1}', w_{n-1}' \ldots);$$

hence:

$$k_i' - k_{n-1}' = \varphi_{n-1}(u_{n-1}', v_{n-1}', w_{n-1}', \ldots) - \varphi_i(u_i', v_i', w_i', \ldots) \quad . \quad . \quad (18)$$

Now it is readily seen from the last three equations (11) that we have generally:

$$\begin{aligned}-\mu_{pu} &= \mu_{uu}u_i' + \mu_{uv}v_i' + \mu_{uw}w_i' + \ldots = \tfrac{1}{2}\frac{\delta\varphi_i(u_i', v_i', w_i', \ldots)}{\delta u_i'} \\ &= \mu_{uu}u_{n-1}' + \mu_{uv}v_{n-1}' + \mu_{uw}w_{n-1}' + \ldots = \\ &\qquad \tfrac{1}{2}\frac{\delta\varphi_{n-1}(u_{n-1}', v_{n-1}', w_{n-1}', \ldots)}{\delta u_{n-1}'}, \text{ etc.,}\end{aligned}$$

hence:

$$\left.\begin{aligned}\frac{\delta\varphi_{n-1}(u_{n-1}', v_{n-1}', w_{n-1}', \ldots)}{\delta u_{n-1}'} &= \frac{\delta\varphi_i(u_i', v_i', w_i', \ldots)}{\delta u_i'} \\ \frac{\delta\varphi_{n-1}(u_{n-1}', v_{n-1}', w_{n-1}', \ldots)}{\delta v_{n-1}'} &= \frac{\delta\varphi_i(u_i', v_i', w_i', \ldots)}{\delta v_i'}\end{aligned}\right\} \quad . \quad (19)$$

. . . .

Now, according to well-known properties of quadrics, and using equations (19), we can write consecutively:

$$\varphi_{n-1}(u_{n-1}' - u_i', v_{n-1}' - v_i', w_{n-1}' - w_i', \ldots) = \varphi_{n-1}(u_{n-1}', v_{n-1}', w_{n-1}', \ldots)$$
$$+ \varphi_i(u_i', v_i', w_i', \ldots) - u_i' \frac{\delta\varphi_{n-1}(u_{n-1}', v_{n-1}', w_{n-1}', \ldots)}{\delta u_{n-1}'}$$
$$- v_i' \frac{\delta\varphi_{n-1}(u_{n-1}', v_{n-1}', w_{n-1}', \ldots)}{\delta v_{n-1}'}$$

$$= \varphi_{n-1}(u_{n-1}', v_{n-1}', w_{n-1}', \ldots) + \varphi_i(u_i', v_i', w_i', \ldots) - u_i' \frac{\delta\varphi_i(u_i', v_i', w_i', \ldots)}{\delta u_i'}$$
$$- v_i' \frac{\delta\varphi_i(u_i', v_i', w_i', \ldots)}{\delta v_i'}$$
$$- \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad .$$

$$= \varphi_{n-1}(u_{n-1}', v_{n-1}', w_{n-1}', \ldots) + \varphi_i(u_i', v_i', w_i', \ldots) - 2\varphi_i(u_i', v_i', w_i', \ldots)$$
$$= \varphi_{n-1}(u_{n-1}', v_{n-1}', w_{n-1}', \ldots) - \varphi_i(u_i', v_i', w_i', \ldots).$$

Comparing this with (18) we find :

$$k_i' - k_{n-1}' = \varphi_{n-1}(u_{n-1}' - u_i', v_{n-1}' - v_i', w_{n-1}' - w_i', \ldots).$$

This is a generalisation of the result stated in § 28 of Mr. Johnson's article, and again we obtain Mr. Johnson's special theorem if we assume (17).

A. W. ZOTOFF

OFFICIAL PAPERS

The Registrar-General's Statistical Review of England and Wales for the Year 1921. (New Annual Series, No. 1.). Tables. Part I. Medical. (15*s*. 6*d*. net.)

THIS is the first instalment of a series which will henceforward take the place of the Registrar-General's Annual Review. In the new arrangement the tables will be divided as (1) Medical Statistics, (2) Civil Statistics. A third section, consisting of "Text," will no doubt appeal more to the economist than the statistics of diseases and deaths. Meantime it may be noticed that the death-rate for 1921, whether "crude," or "standardised," with respect to differences of age and sex at the compared periods, is the lowest on record.

Sixty-seventh Annual Report of the Registrar-General for Scotland. 1921. (10*s*. 10½*d*. net.)

THE death-rate, 13·561 per 1000 of population, in 1921 was the lowest on record. The mortality of infants under one year

per 1000 births, viz. 90·3, was also a record. The deaths of twelve centenarians were registered; correctly in at least four cases, for which satisfactory evidence was forthcoming. Similar verification of ages above 100 has been obtained during the last twelve years. The marriage-rate (per thousand) in 1921, 8·04, was lower than those of 1920 and 1919, but higher than all the marriage-rates from 1855 to 1918. The birth-rate was not equally near forming a record. The ratio of males to females born, 104·9 : 100, is not remarkable.

Reports of the Industrial Fatique Research Board. No. 19. *Two Contributions to the Study of Accident Causation.* 1922. (1*s.* 7½*d.* net.)

THE influence of temperature and other conditions on the frequency of industrial accidents has been investigated by Ethel Osborne, M.Sc., and H. M. Vernon, M.D.; the relation of fatigue and accuracy to speed and duration of work, by B. Muscio. The Board prefix a luminous summary of these and previous investigations. Besides the main factors of speed, fatigue, and psychical conditions (different, *e. g.*, by day and late at night), account may have to be taken of personal susceptibility to accidents, of inexperience correlated with youth, of indulgence in alcoholic beverages, of imperfect lighting, and too high or too low temperature. The value of the Preface is enhanced by many useful references.

Report on the Commercial, Industrial and Economic Situation of China in July 1922. (1*s.* 10½*d.* net.)

FLOODS, famine, and civil war made 1921 a bad year for China. Her only two sources of revenue are Maritime Customs and Salt Gabelle, both under foreign control. The depreciation of the copper currency is scandalous. However, modern industries are coming in; there is a good show of new undertakings. Work-people are being better treated; and their strikes are not yet serious. The revised tariff on imports, amounting to 12½ per cent., will be welcome, if it is attended with the abolition of the internal tax, "Likin." The protective tariff is not an unmixed advantage to the English trader, who is also threatened by the revival of German trade.

[We are asked to mention that copies of the above Reports may be obtained at the prices quoted, *post free*, from H.M. Stationery Office, Imperial House, Kingsway, W.C. 2.]

OBITUARY

Sir Charles Loch

Charles Stewart Loch was barely twenty-six when he was appointed Secretary of the Society for the Organisation of Charitable Relief and the Repression of Mendicity in 1875. Educated at Glenalmond and Balliol, he had previously served for two years on the Islington district committee of this Society while holding the post of Clerk to the Royal College of Surgeons. His marriage in 1876 to Miss Sophia Peters, one of Miss Octavia Hill's band of helpers, was a very happy one, giving him to the end of his life the support of perfect sympathy and devotion to the same ideals.

The unity of purpose and the beautiful simplicity of his home life were sources of great moral strength both to himself and to those who came in contact with him. The temptations of Vanity Fair had no power over him. Again he owed much to some of the men and women with whom he was most permanently associated. Throughout the nearly forty years that he was the official target of the C.O.S., to whom cheques were to be paid and against whom libel actions were to be directed, there must have been few members of the Administrative Committee of whom he could not have said, as of one of his colleagues, " He had the distinction of a gentleman, which I take to be an instinctive power of detecting the false and untrue, coupled with a large sympathy for all sorts and conditions of men. . . . All the trafficking of modern philanthropy he hated—the bazaars, the balls, the parade, and the worldliness and all that sale of merchandise in God's temple of charity that may make it hardly better than a den of thieves." He would not have had so firm a faith in the strength which can be imparted to one man by another from the charity of his soul, had he not himself been deeply conscious of how much he drew from others.

The first " Object " of the Charity Organisation Society was " The Improvement of the Condition of the Poor." The detection of fraud which bulked so largely in the public conception of its energies was in fact but a small part of its activities. The begging-letter-writer whose letters are sent by the recipients to a central office generally convicts himself, and the street beggar when visited by the committee member or agent in the district in which he has domiciled himself is quickly found out if an impostor. Mr. Loch's work was largely educative and

aimed at persuading workers and societies of all denominations, engaged in relief work, to join together in districts coincident with parishes or poor law divisions, and by joint consultation in committee to discover the right method of relieving each case of distress, making the independence and self-support of the man or woman relieved the main objects pursued and promoted. Eight years after his appointment there was a minute of the Administrative Committee to the effect that Mr. Loch must be considered a volunteer worker, for his services were worth to the Society at least a thousand a year in addition to what they were able to pay him.

The relation of Charles Loch to his Society was frequently misapprehended. "I have to ask you," he once wrote, "in no way to dissociate me from the Society, as you have done in the paragraph I have quoted. The question at issue does not concern myself personally, but the Society whose officer I am, and whose views I share; and it is on their behalf I write." The government of the Society was democratic, the Council consisting of the Chairmen of the district committees, the honorary secretaries and two ordinary members from each committee, with the addition of representatives of various special relief organisations and certain members co-opted by the Council. The Administrative Committee were elected by the Council from their midst by voting papers after due notice of nomination. That their Secretary, who was neither a diplomatist nor a wire-puller, could work in such harmony with his Society as to give some outsiders the impression that he "ran" it, was due to his unswerving faith that "organisation must be founded on common convictions; with it there must be a full and fair recognition of differences, in so far as these are the sign of endeavours after progress, and not the indication of lapses to a lower ideal of charity and poorer methods of work." And again—"Organisation is a spiritual thing. It is the union of those who have common hopes and convictions."

"The C.O.S. is widely disliked and universally trusted," said the *Oxford Magazine* when the University conferred the D.C.L. on its former alumnus. As time went on there were several who believed that by dropping the word Charity the Society would relieve itself of the odium of its association with condescending almsgiving. In a paper read to a Clergy Guild in defence of political economy, Loch asks, "What is Christian charity? The mood of the Christian, the habit of mind of Christ—that which is not one of the virtues but the completion

of them—that in which their apparent differences are harmonised, the mood in which the sufficiency of love, and therefore peace, is dominant. This mood becoming habitual is the Christian life. . . . The habit of mind which is 'charity' produces the judgment which is charitable; and that uses any method that is at hand to fulfil its purpose." And in his survey of *Charity and Charities* in the *Encyclopædia Britannica* he maintains that "Relief is not an essential part of charity or charitable work. It is one of many means at its disposal. If the world were so poor that no one could make a gift, or so wealthy that no one needed it—the charity of life and deeds would remain." And elsewhere, "For where honour and simplicity are we live by love in part proceeding from us, in part reflected in us." When the title of the Society was changed in 1910 it became *The Society for Organising Charity and Improving the Condition of the Poor.*

When Charles Booth began his campaign for Universal Old Age Pensions he approached the problem from the statistical side, and his opponents, of whom Charles Loch was the leader, were necessarily forced to use the same weapons. From 1892 to 1908 he served almost continuously on the Council of the Royal Statistical Society, five times as Vice-President, being chosen in the first instance by the President, Charles Booth. From 1893 to 1895 they both served on the Royal Commission on Aged Poor, and were again colleagues on the Royal Commission on the Poor Laws appointed in 1905. For the Majority Report of that Commission, which terminated its arduous labours in 1909, Charles Loch was largely responsible; ill-health compelled Charles Booth to resign early in 1908. There can be no question that the community gained greatly by this elimination of political partisanship and by this signal example of the advantages gained by co-operation in friendly and unrelenting mutual criticism between two men "united by common hopes and convictions."

From 1892 to 1913 we find Charles Loch working in three directions. Three addresses to his Council, printed in the *Charity Organisation Review*, should be studied by all who care to know what his Society aimed at doing, and in what degree it had succeeded and failed. The first deals with *The Objects and Finance of the C.O.S.* [C.O.R. March 1899]; the second with *The Development of Charity Organisation* [C.O.R. February 1904]; the third with *The Future of Local Charity Organisation* [C.O.R. December 1907]. "If you hear unpalatable opinions, or too vigorous self-criticisms, or proposals you may think wild

. . . clip off, as it may suit each of you, what parts you will from the opinions, the criticisms and the proposals. Only I ask—don't turn aside and bury what I say as a dead thing." This in 1904; and in 1907—" There must be a spirit that moves us always to the future and always onward. What we have gained we have only a right to keep on the pledge that we go forward." Concurrently with these efforts amongst his own " masters," nearly every year we find in the *Review* addresses given to all kinds of associations or groups, full of practical suggestions, and stimulating everywhere the belief in the need of careful study of economics and sociology, which took effect in various towns in the establishment of schools for students training for social work. And from first to last he is to be found searching for ways of co-operating with the authorities created by law. As in the very earliest days the most capable members of the Society were urged to stand for election on Boards of Guardians, so in 1912 we find him addressing the Twenty-first Annual Conference of Charity Organisation and Kindred Societies, held at Manchester, on *The Place of Voluntary Workers under Modern Social Legislation.* " I take it for granted that when a law has been passed, we all recognise it as our duty to help forward its administration in every way " [C.O.R. July 1912]. At the next Conference, held at Winchester, which proved to be the last occasion on which he addressed a public audience, his subject was *The Spirit of Enterprise.* " Let them then persevere, remembering that the only thing they need fear was funk." " Dr. C. S. Loch said that he did not claim a large share of the work done; those whom he was addressing had done it. He had merely spent his life as he desired to spend it " [C.O.R. June 1913].

Struck down by illness in June 1913, his resignation of the post he had held for thirty-eight years had to be accepted in October 1914. To the urgent request of the Council that he would accept a pension he replied, declining it—" I always knew that no pension of any kind was attached to my post, but had there been any need I would have accepted gratefully what the Council so thoughtfully and graciously offer." The assurance given by Dr. Bernard Bosanquet to the Council, that there was every prospect of a happy and pleasant evening of life for his old friend, whom he had known since their Oxford days, proved fully justified. In 1915 the honour of knighthood was conferred on him. He died on the 23rd January, 1923.

CLARA E. COLLET

George Armitage-Smith

The Royal Economic Society has lost a useful and distinguished member. Armitage-Smith, who died last January at the age of seventy-nine, had for many years attended to the business of the Society as member of its Council. He figured in the Economic Journal both as reviewer and reviewed. He was among the founders of our Society. This statement would not at once be verified by one who might consult the list of original members given in the first number of the Economic Journal. For the name appears there as Smith, followed by Armitage as a Christian name. Such was the original relation of the names. "Armitage," subsequently incorporated in the surname, was the name of a near relation who adopted and educated the young Armitage-Smith.

The world owes something to this Mr. Armitage if, as we have heard, it was through his influence and example that the future economist was inspired with an invincible love of learning. Armitage Smith, as the name should be written with reference to his earlier years, completed his education at University College, London; and took the degrees of B.A. and M.A. in the London University. Later he obtained the distinction of Doctor of Letters in that University. The work which he first took up was under a Department of the public service. The routine of this occupation was not to his taste, and, after some years of office work, he was glad to sever his connection with the Department and to devote himself to teaching. He was connected with the University Extension Movement, and with the Birkbeck College, of which he became Principal in 1898. He taught —with singular lucidity, as we have heard and can well believe— several branches of mental and moral science. But his special interest was in Political Economy. We may conjecture that his friendship with Jevons was not without influence in giving this direction to his talents.

As an economist Armitage-Smith walked in the way of the classical authorities. It would be difficult to say whether he detested Protection or Socialism more heartily. He undertook a congenial task when he became the defender of Free Trade in the book entitled *The Free Trade Movement and its Results* (1898). The work is an important contribution to controversial literature. It has been highly praised in the Economic Journal by one who will not be suspected of bias in favour of a free-trader, Mr. L. L. Price. While hinting that the

author is "stiffly orthodox," the very competent critic yet attributes to him "sober judgment" and a "scientific spirit of inquiry and explanation." Similarly high praise is bestowed (in the ECONOMIC JOURNAL, 1906) by another high authority, Professor Bastable, on another of Armitage-Smith's works, *The Principles and Methods of Taxation.* The work, which is now in its seventh edition, deserves the popularity which it enjoys as a concise and logical statement of leading facts and principles. We should mention also the little book entitled *The Citizen of England, his Rights and Duties.*

Armitage-Smith was fortunate in domestic life. A happy marriage was crowned by a "golden wedding." Parental pride was gratified by the distinguished career of a son, a high Treasury official and the historian of John of Gaunt.

CURRENT TOPICS

THE following have been elected to fellowship of the Royal Economic Society :—

Allen, G. C.
Allen, G. T. H.
Amos, H.
Angell, A. E.
Ashworth, W.
Atkin, R. K.
Babington Smith, Sir H., G.B.E., K.C.B.
Belknap, Prof. W. B.
Bertenshaw, E. S.
Birnie, A.
Brainerd, Cephas IV.
Brunton, J.
Buchanan, R. O.
Burns, A. R.
Bush, B.
Butler, Miss C. V.
Carrothers, Prof. W. A.
Chopra, B. N.
Cornwall, E.
Cottrell, Lt.-Col. R. F., D.S.O.
Curtis, A. J.
Daniel, W. J.
Das, R. S.
Din Khan, M. N.
Drysdale, G. R.
Evans, G. E.
Evans, I. L.
Everton, W.
Felix, E. H.
Fining, J. N.
Foucar, A. F. E., O.B.E.
Frame, Prof. H. C.
George, C. O.
George, P.
Gleave, S.
Goodhue, H. E.
Gowin, E. B.
Greenwood, F. W.
Haddow, H. P.
Hagger, S. W.
Hardingham, B. G.
Harrod, R. F.
Hart, H. McB.
Harvey, W. L. T.
Hill, A. B.
Holden, O. F.
Holgate, H. C. F.
Hood, F. C.
Hornsby, B.
Howell, W. J.
Hurd, W. B.
Jackson, W.
Jacobs, J. C. M.
James, F. C.
Johnston, A. G.
Jones, H. H.
Kearon, G. W.
Keld, A.
Kilborn, R. D.
Knopf, Alfred A.

Law, W. W.
Lawton, W. L.
Lee, F. E.
Lees, G. T.
Lenton, F. E.
Lever, E. A.
Lewis, Sir Alfred E.
Lewis, Prof. A. E.
Lloyd, D. Willson.
McClelland, H.
McElligott, J. J.
Mallik, A. N.
Mason, H.
Matsuyama, Shinjiro.
Miles, J.
Milne, J. L.
Mitchell, G. A.
Mitrany, D.
Mitroff, B.
Moffat, Prof. J. E.
Murata, K.
Naish, D. E.
Nayudu, P. E.
Newbon, J. L.
Ohdaira, Kensaku.
Oughton, Miss O. T.
Patil, V. N.
Patterson, E. J.
Pease, J. B.
Peel, H.
Plummer, A.
Rai, Prof. Amrit.
Ranshaw, G. S.
Ransom, H. J. A.
Read, W. R.
Richard-Jones, E. T.
Richards, R. D.
Riddell, T. C.
Ross, J.
Roy, Narendra N.
Ryley, S. C., J.P.
St. Clair, O.
Seymour, H. T.
Shammah, A. J.
Shawyer, A. F.
Sheffer, H.
Shields, Rev. A. L. J.
Simonds, A. T.
Slade, Mrs. A. J.
Smith, Rennie.
Starbuck, W. D. L.
Suga, S.
Sykes, J.
Taylor, E. M.
Teniswood, W. V.
Thomas, W. R.
Twine, H. D.
Wakamatsu, Torao.
Wang, Prof. S. C., LL.D.
Watson, H.
Watson, W.
White, A.
Whiting, H. E.
Whyte, W. H.
Wild, P.
Williams, A.
Williams, Mrs. G.
Winter, E. C.
Wise, H. L.
Wright, W. G.
Young, C. V.
Youssef, M. A.

The following have compounded for life membership :—

Belknap, Prof. W. B.
Buchanan, R. O.
Carr-Saunders, A. M.
Dicksee, Prof. L. R.
Greenwood, F. W.
Knight, Prof. F. H.
Minty, L. Le M.
Moffat, Prof. J. E.
Monroe, J. H.
Otsuka, Kinnosuke.
Rai, Prof. Amrit.
Sheffer, H.
Smith, Rennie.

The following have been admitted to library membership :— Athenaeum Club; Banque de France; Bowdoin College Library, U.S.A.; Emory University, U.S.A.; Facultad de Ciencias Economicas, Buenos Aires; Federal Reserve Board, Washington; Grand Rapids Public Library, U.S.A.; Institute of Economics, Washington; James Jerome Hill Reference Library, U.S.A.; K. Socialstyrelsens Bibliotek, Stockholm; Lewis's Departmental Library, University of Manchester; National Bureau of Economic Research, New York; New York University; Saskatchewan

University Library, Canada; School of Higher Commercial Studies of Montreal; Sheffield Public Libraries; Statistical Department, Cairo; Transvaal University College, Pretoria; Trivandrum Public Library; United States Department of Agriculture, Washington; University College, Exeter; University of Pittsburgh; Workers' Educational Association Club, Sydney.

THE end of the last of the Private Note Issues of England cannot be allowed to pass without a brief obituary in the ECONOMIC JOURNAL. In 1844 there were 205 private banking firms with an authorised issue of £5,153,417, and 72 joint-stock banks with an authorised issue of £3,478,230. With the recent amalgamations the last of these have now disappeared, and a new Order in Council has authorised the final addition to the fiduciary issue of the Bank of England under the Act of 1844. Since under this Act the Bank of England enjoys the right to add two-thirds of the lapsed issues to its own fiduciary circulation, the amount of the latter can be raised from its original figure of £14,000,000 to £19,754,431. Previous Orders in Council having raised it by successive stages to £18,450,000, it has now been fixed by an addition of £1,300,000 at the round figure of £19,750,000. The Bank has already taken advantage of its new powers, but the additional notes issued under them (£1,300,000) have been immediately transferred out of the Reserve of the Bank into the Currency Note Reserve.

The following is a list of the banks which have allowed their issues to lapse since 1903, all but three owing to amalgamations :—

			£
Cambridge and Cambridgeshire	49,916	Whitehaven	31,916
Bradford Commercial ...	20,084	North and South Wales ...	63,951
Bacon, Cobbold & Co. ...	27,689	York City and County ...	94,695
Sheffield Banking Co. ...	35,843	Jones, (David) & Co. ...	32,945
Hedges, Wells & Co. ...	17,064	Stuckey's	356,976
Hammond & Co.	23,098	Bradford Banking Co. ...	49,292
Berwick, Lechmere & Co. ...	87,448	Davies, Banks & Co. ...	26,050
Leatham, Tew & Co. ...	46,158	Halifax and Huddersfield Union	44,137
Wakefield and Barnsley Union	14,604	Carlisle and Cumberland ...	25,610
Sheffield and Rotherham ...	52,496	Peacock, Wilson & Co. ...	51,615
Stamford, Spalding and Boston Banking Co.	55,721	Lincoln and Lindsey Banking Co.	51,620
Lancaster Banking Co. ...	64,311	Simmonds & Co.	37,519
Wilts and Dorset	76,162	Sheffield and Hallamshire ...	23,524
Harris, Bulteel & Co. ...	27,321	Gillett & Co. (Banbury) ...	43,457
Barnard (Thomas) & Co. ...	34,218	Gillett & Co. (Oxfordshire, Witney)	11,852
Bank of Whitehaven ...	32,681	Beckett & Co. (York) ...	53,392
Nottingham and Notts ...	29,470	Beckett & Co. (Leeds) ...	130,757
West Yorks Banking Co. ...	18,534	Tubb & Co.	27,090
Halifax Commercial... ...	13,733	Fox, Fowler & Co.	6,528

OUR contemporary, the *Economic Review*, has anticipated an intention of our own by their reprint of Professor Seligman's important observations on *The Allied Debts*, which appeared in the *New York Times* of November 5, 1922. There is now accessible to English readers this " constructive criticism of Secretary Hoover's views," as it is described in a secondary title. The criticism is aimed principally at three points: the character of the obligations, the ability of the debtors to pay, the advantage to the creditors of an early settlement. Under the first head it is shown that " most of the money was loaned and the proceeds used to carry on a joint enterprise during a time when our (the United States') aid in the shape of actual combatants was insignificant." It is added: " We are the one nation in the world which has profited by the war." Secondly, the debtors cannot pay now, and will not be able to pay within any assignable time. And even if the debt could be paid, " it would harm us more than our debtors. . . . Let us not with one stone kill two birds, each of which we should seek to keep alive— the one, the hope of European regeneration in the interests of a broad humanity, the other our own prosperity."

THE Prime Minister has appointed a Tribunal of Investigation into the agricultural problem, consisting of the following economists:—

Sir William Ashley, Professor of Commerce and Vice-Principal of the University of Birmingham.

Professor W. G. S. Adams, Gladstone Professor of Political Theory and Institutions, Oxford.

Professor D. H. Macgregor, Drummond Professor of Political Economy, Oxford.

Mr. C. S. Orwin, Director of the Institute for Research in Agricultural Economics at Oxford, has been appointed agricultural assessor to the tribunal, and Mr. D. B. Toye, of the Ministry of Agriculture and Fisheries, secretary.

THE London and Cambridge Economic Service, which is continuing in a revised and more elaborate form the " Barometer of Economic Conditions " which appeared last year in the *Manchester Guardian Reconstruction Supplements*, has now issued two monthly bulletins and two supplements, containing French, German and Italian statistical data. The first included a study of the Index Numbers covering the period 1919–22, the second an article on the Distribution of Exports in 1922 from the United Kingdom, in addition to statistical tables and charts relating to Finance,

and Exchanges, Prices, Wages, Trade and Output, Transport and Employment. The bulletins also contain a review of the general business position, in which are discussed the existing conditions and immediate future of trade. An interesting feature in the next supplement will be a special study prepared by Dr. T. E. Gregory on Tariff Changes in Relation to British Trade.

Other special studies which will, it is hoped, appear every six months, are Visible Stocks of Commodities, by Mr. J. M. Keynes, assisted by Mr. R. B. Lewis, and Harvest Results and Prospects, by Sir William Beveridge and Mr. R. B. Forrester. Arrangements are also being made to publish special memoranda dealing with—amongst other subjects—

Seasonal Movements in Finance, Trade and Production; the Time-Relation between British and American Trade Movements; the Coal Trade; the Iron and Steel Trade; Shipping and the Cotton Trade.

The service is issued in the first instance to subscribers only, but is available after an interval of time in certain libraries. Particulars can be obtained from the Secretary, London and Cambridge Economic Service, Houghton Street, Aldwych, W.C.2.

FOR Section F of the British Association, which meets this year at Liverpool, September 12, the following are the provisional arrangements. The President of the Section, Sir William Beveridge, will deal with questions relating to Unemployment and Population. The Section will hold joint discussions, (1) with Section M (Agriculture) on the present position and prospects of British Agriculture; (2) with Section I (Psychology) on the psychological assumptions of economic theory. The readers of Papers, with their subjects, will be as follows:—Professor A. Clay, *The Future Level of Real Wages*; Mr. J. J. Clark, *Relrocessing of Slum-Dwellers*; Professor F. Y. Edgeworth, *Women's Wages in Relation to Economic Welfare*; Mr. Sargant Florence, *Industrial Fatigue*; Mr. H. D. Henderson, *Stabilisation of Prices*. Professor H. M. Hallsworth will deal with some problems connected with *Unemployment Insurance*. Also a Paper on the present position of British Railways may be hoped for.

THE Council of the Royal Statistical Society will, in November, 1923, award the Frances Wood Memorial Prize, value £30. The Prize will be awarded for the best investigation of any problem dealing with the economic or social conditions of the wage-earning classes. The subject is to be chosen by the competitor and must be treated on statistical lines. Those eligible to compete are:—(1) All undergraduates or graduates of not more than three

years' standing of Universities in the United Kingdom. (2) Non-graduate students who have attended a tutorial class of the Workers' Educational Association for at least two years, during the four years preceding the award. (3) Students who have resided, and followed a course of study for at least one year, at Ruskin College, in the four years preceding the award. (4) Such other candidates as the Council in their discretion may admit. Theses submitted or intended to be submitted as university exercises, and also published papers, are admissible. Essays (which must be either printed or typed, and accompanied by copies of all statistical tabulations) must be sent to the Honorary Secretaries of the Royal Statistical Society, 9, Adelphi Terrace, W.C. 2, not later than 1st July, 1923.

THE issues of the ECONOMIC JOURNAL for December, 1915, March, 1917, March, 1918, March, 1919, and March, 1920, are now out of print. As a few additional copies are required for the purpose of completing sets, the Secretary of the Royal Economic Society would be much obliged if any Fellows who can spare their copies of these issues would return them to the Assistant Secretary, Mr. S. J. Buttress, 6, Humberstone Road, Cambridge. A payment of 5*s*. will be made for each copy so returned.

THE American Institute of Accountants Foundation offers prizes for the best papers upon the following subject:

> The principles which should govern the determination of capital and the amounts available for distribution of dividends in the case of corporations, with special reference to the system of capital stocks without a par value.

While it is contemplated that the winning paper will discuss adequately the various aspects of the question—legal, accounting, economic and financial—the jury will be empowered to make awards to papers in which any one phase of the question is in their judgment particularly well covered.

The amount of the prizes will be in the discretion of the jurors, subject to the provision that the first prize shall not be less than $1,000 nor more than $2,500, and that other prizes shall not be less than $250 nor more than $750. The competition is open without restriction.

Full particulars may be obtained from A. P. Richardson, secretary of the American Institute of Accountants Foundation, 135 Cedar Street, New York. Papers must be submitted not later than October 1, 1923.

RECENT PERIODICALS AND NEW BOOKS

Contemporary Review.

DECEMBER, 1922. *France's fight against her Falling Birth-rate.* EDITH SELLERS. Deep is the fear of being outnumbered by a prolific enemy, and many are the provisions, national and local, for stimulating the birth-rate.

Nineteenth Century.

DECEMBER, 1922. *The Way to Agricultural Success.* O. TURNOR.

Fortnightly Review.

DECEMBER, 1922. *The Money Mirage and a Levy on Capital.* J. ELLIS BARKER. *Labour and Agriculture: a Political Programme.* S. L. BENSUSAN. *Unemployment.* COLONEL D. C. MCLAGAN, D.S.O.

Manchester Guardian Commercial.

Reconstruction in Europe.

Section IX., On *The Labour Problems of Europe*, includes an article by Mr. Philip Snowden arguing that British Labour is not Socialist in the Continental sense, will not try to overthrow the capitalist system by a violent revolution. French, German and International labour movements are discussed by various experts. Mr. John Hilton institutes a comparison between real wages in Great Britain and certain other countries. Roughly, real wages in Great Britain, France and Germany last spring were in the ratios $1 : \frac{2}{3} : \frac{1}{2}$. The figure for the United States is above $1\frac{1}{2}$. Mr. J. H. Richardson compares real wages in Europe to-day with those of 1914. There is evidenced reduction of inequality in remuneration as between skilled and unskilled, men and women.

Section X., *The United States and Europe*, discusses thorny questions connected with war debts and the immigration from Europe into America.

Section XI. Discussing under the head of "Devaluation" the proposal to restore much-depreciated currencies to their old parity, Mr. Keynes points out that the proposal involves an aggravation of internal debt. The level of the franc, *e. g.* will be determined by the proportion of his earned income which the Frenchman will permit to be taken from him by taxation to pay the *rentier*. Czechoslovakia tried devaluation with bad results. Professor Irving Fisher shows that deflation, by shifting the burden of debt, may do more harm than good; justice to surviving pre-war creditors, but grave injustice to the much larger number of war-time and post-war debtors. Prof. Pigou explains the mechanism of international trade as depending on the "real ratio of international exchange"—the rise or fall in the value of imports in general in terms of exports in general; a conception capable of being apprehended by way of weighted averages. He considers the effect of customs duties; and argues that the United States has the power by taxing imports to turn the real ratio of international exchange in her favour, and so to make the foreigner, besides paying his debts to her, also contribute substantially towards her tax revenue. *European Banking* forms a second section, to which contributions are made by experts representing the principal countries. There is, thirdly, an Architectural History of the Bank of England, illustrated by photographs.

Section XII. The concluding section deals with "the state of opinion in Europe," the prospects of peace. Mr. Keynes sees no hope for the future unless the two principles of Pacificism and Population are adopted. (I) The first prescribes (*a*) that we should be before, not behind others in our willingness to disarm; (*b*) that we should not use force to prevent secession from the Empire; (*c*) that we should hold to free trade. (II) The problems discussed in the sixth Section must be faced. Socialists should look to final effects on the proportion between numbers and resources. Other experts testify as to the mentality of their particular countries and the general situation. The Queen of Rumania contributes a beautiful expression of wish for closer ties between her country and England. Professor W. H. Wells (once an Englishman, now a naturalised German) inveighs bitterly against the "betrayal" committed at Versailles. "It has become an inconvertible proof that 'Machtpolitik' is after all 'the only wear.'" "One day the Allies may be confronted—like Germany at Versailles—with results." Mr. G. Lowes Dickinson affirms "the plain fact that if States (all States) would disarm . . . completely there would not and could not be a war. . . ." "Why then do the States not disarm?" Mainly through covetousness; as in the late war "the French wanted Alsace-Lorraine, the Russians wanted Constantinople . . . the British wanted anything they could conveniently pick up."

The Irish Economist (Dublin).

JANUARY, 1923. *The Philosopher in Trade.* PAUL GREGAN. Among some general reflections there occurs the fact that cold-stored eggs are often sold in Ireland as fresh eggs at 50 per cent. above their true price. *Co-operation in France.* CHARLES GIDE. Successful during the war, the co-operative movement is now threatened with loss of some of its virtues in the attempt to gain the masses. *Fundamental Economics for Irishmen.* M. ALEXANDER and A. THOMPSON. The re-establishment of the home market is Mr. Alexander's leading idea. Mr. Thompson considers the "Douglas" scheme, and finds it an "eminently sane scheme promising most desirable results." *Protection for Irish Industries.* JOSEPH JOHNSTON. Protection is bad; but so are other impediments to trade, *e.g.* deficient arrangements for the export of Irish produce.

There are also articles on the co-operative movements in Russia and in Italy.

International Labour Review (Geneva).

DECEMBER, 1922. *The Fourth International Conference.* A summary of the proceedings of the Conference held at Geneva, 1922. *The Strike in the Gold Mines of South Africa.* COOPER KEY. A description of the strike which lasted from January to March, 1922. *The Consumers' Co-operative Movement in the United States.* FLORENCE E. PARKER.

International Labour Review (Geneva).

JANUARY, 1923. *Vocational Education in Stockholm.* NILE FREDERIKSSON. *Co-operation in Russia before the War.* PROF. V. TOTOMIANTZ.

Quarterly Journal of Economics (Cambridge, Mass.).

NOVEMBER, 1922. *The Tariff Act of* 1922. F. W. TAUSSIG. The great evil of Protectionist legislation, the disturbance of industry by frequent changes, is not avoided by the last Tariff Act, which

will provoke reaction by its anomalies; *e. g.* toys taxed at the rate of 70 per cent.; dice at only 50 per cent. The vain idea of "equalising costs of production" is fruitful of inconsistencies. *The Textile Schedules in the Tariff of* 1922. ARTHUR H. COLE. *The Foreign Exchanges.* A. C. PIGOU. An improved statement of theory, showing that "purchasing power parity" does not exactly indicate exchange equilibrium, owing to the imperfection of index-numbers and the existence of non-exportable commodities. *The British Building Guilds.* CARL S. JOSLYN. The constitution of the Guilds—described fully—works well; "continuous pay" has not produced malingering, discipline is not wanting. "The evidence is overwhelming that the efficiency of Guild labour is much superior to that of labour employed by the average private builder," whether we consider economy or quality. But the Guilds had the advantage of an urgent demand for houses after the war. The building industry in England, not stimulated by foreign competition, has not a high standard of efficiency. We cannot infer the success of a nation-wide Guild organisation. The abandonment of supply-and-demand as the determinants of value presents great difficulties. *Communism among the Mormons.* HAMILTON GARDNER. According to a scheme instituted by Joseph Smith and his immediate followers, Mormons were to act as "stewards" of property transferred to the Church. The plan, however, lay dormant, till in 1873 Brigham Young revived Communism in a different form. It soon collapsed; perhaps owing to its too sudden introduction.

The Journal of Political Economy (Chicago).

DECEMBER, 1922. *British Aspects of Unemployment.* D. H. MACGREGOR. The light of British experience is thrown abundantly on four features: (1) Insurance, whether on the lines of the 1920 Act, or more in accordance with that "industrial idea" which underlies the Whitley Councils and the Guild movement; (2) Labour Exchanges, which, rightly understood and supplemented, will not prove a failure; (3) the proposal that public authorities should so distribute their work in time as to counteract depression—not so simple a plan as it seems; (4) arrangements for the training and maintenance of surplus labour.

English Agriculture since 1914. H. REGINALD LENNARD. *Capitalisation of Railroad Surplus.* H. F. CLARK. *Dumping in International Trade.* JACOB VINES.

The American Economic Review (Cambridge, Mass.).

DECEMBER, 1922. *Economic Philosophy of Co-operation.* E. G. NOURSE. *Unique Situation in Economic Theory.* O. FRED BOUCKE. What with marginalism and utilitarianism, the abandonment of sensationalism and consequent break with statics and catallactics, "we are on the eve of great events in economic theory." *Public Utility Valuation.* S. D. SOUTHWORTH. *The Course in Elementary Economics.* JOHN ISE.

The teaching of the elements should not come first.

Journal des Economistes (Paris).

NOVEMBER, 1922. *L'incapacité de la Russie Bolchevick.* YVES GUYOT. *Les idées économiques d'Antonio Serra.* G. ARIAS. Serra's treatise, published in 1613, is said to have inaugurated the method of observing economic facts.

DECEMBER. *Observations fiscales.* YVES GUYOT. *Le privilège du trésor sur les immeubles.* F. JACQ.

Revue d'Economie Politique (Paris).

NOVEMBER–DECEMBER, 1922. *Les finances locales en Alsace et en Lorraine.* W. OUALID. *Les précurseurs de l'économie monétaire en Italie.* G. ARIAS. Davanzati in 1588 divined the "quantity" theory of money. Montanari anticipated modern theories of value. *Le Guild Socialisme dans l'industrie anglaise du bâtiment.* A. PHILIP. *Les théoriciens de langue allemande de la co-opération.* TOTOMIANTZ.

Jahrbücher für Nationalökonomie und Statistik (Jena).

NOVEMBER, 1922. *Ricardo und Cassel.* E. LUKAS. Of the two similar methods Cassel's is the more useful. *Die Ursachen des Geburtenrückganges.* J. MÜLLER.

DECEMBER. *Zur Grundlegung der Wirtschaftswissenschaft.* L. STEPHINGER.

Weltwirtschaftliches Archiv (Jena).

NOVEMBER, 1922. *Naturrecht und Humanität in der Weltpolitik.* PROF. E. TROELTSCH. *Da Wirtschaftliche Bedeutung des Serienschiffes.* On the production of ships of a standard type in great numbers. *Der Komprador.* A study in Chinese domestic trade. *Zum ersten Kolonisations versuch. Frankreich in Kanada* (1540–1543).

Zeitschrift für Volkswirtschaft und Sozial-politik (Vienna).

BAND II, Heft 7–9. *Die Grundlagen der Lohnbestimmung.* VERRIJN STUART. *Finanz-politik der Nachfolgestaaten der österreichisch—Ungarischen Monarchie.* DR. PAUL GRUNWALD-EHREN. On the finances of some new States.

Viertel-Jahrschrift für Sozial und Wirtschaftgeschichte (Berlin).

BAND VI, Heft 3, 4. *Prekarie und Benefizium.* H. GRUNFELDER. On certain legal terms and conceptions. *Die Färberei in Deutschland bis zum Jahre* 1300. H. VOLTELINI. • *Die geschichtliche Entwicklung der Sonntagruhe.* P. E. BRAUN. An interesting history of arrangements for a day of rest; from the times of the Babylonians, whose weekly pause presented marked contrasts to that of the Jews, down to recent times in which the religious sanction has disappeared in some countries; the Republic of Brazil, *e.g.* enacting that the day of rest should be known not as the Lord's Day, but as man's day. *Die Juden und der Handel in Lübeck.* E. BAASCH. About the part played by the Jews in the industry of Lübeck from early times.

Giornale degli Economisti (Rome).

NOVEMBER, 1922. *La pressione fiscale ed il problema del pareggio.* G. BORGATTA. On the maintenance of budgetary equilibrium. *Inflazione monetaria e corso dei cambi.* MARCO FANNO (continued).

DECEMBER. *Inflazione monetaria e corso di cambi.* MARCO FANNO. This article deals with the course of foreign exchanges on the hypothesis of a variable par. *Intorno al beneficii del produttore.* G. SENSINI. Referring to his article in the issue of March, 1922, the writer concludes his disquisition on the profits of the producer, which he finds to be zero for margins rather than for totals.

Giornale degli Economisti (Rome).

JANUARY, 1923. *Una statistica internazionale delle spese militari.* FULVIO ZUGARO. A comparison between different nations in respect of the amount of military expenditure and its proportion to the total expenditure of the State, now and in 1913. *E.g.* for the United Kingdom the military expenditure was nearly, in thousands of gold francs, 2,170,000 in 1913–14; in 1922, 3,832,000, which at the prices of 1913 become 2,586,000; the percentage of military on total expenditure was in 1913–14, 41·4; in 1922, 17·6. The corresponding figures for France are: military expenditure in 1913–14, 1,807,000; in 1922 (at the prices of 1913), 1,500,000; the percentage of military to total expenditure was in 1913–14, 35·7; in 1922, 14·7. Schemes of comparative statistics are proposed in the hope of their being used in future by the League of Nations for the reduction of armaments. *I. Porti.* EPICARMO CORBINO. A description of four Italian harbours.

La Riforma Sociale (Turin).

NOVEMBER–DECEMBER, 1922. *Il livello del protezionismo in Italia.* F. A. REPACI. Out of the mouth of business men are proved the injurious results of the recent increase in Italian protection.

La Reforma Sociale (Turin).

JANUARY–FEBRUARY, 1923. *Su l'emigrazione Italiana.* DR. ALBERTO GEISSER. *Il fallimento fiscale.*

Revista Nacional de Economia (Madrid).

VOL. XIII., No. 40. *Evolución de la moneda en España.* A. V. ESCUDERO. A history of Spanish money from the seventh century, B.C. *La politica commercial de los Estados.* W. P. UNIDOS. The writer professes to apply a theory of Protection which he explained in a former number, Vol. X., No. 30. *La teoria de las disponibilidades.* G. BERNACER. What the practical man means by "disponibilities"; and the connection of this conception with economic crises. *El ahorro en España.* Saving in Spain.

Social Science Quarterly (Peking).

VOL. I., No. 1. The periodical started by the National University, Peking, begins with an attractive programme: *The Theory of Money and the Standard Problem,* Prof. M. Y. KOU; *The Begin-*

ning of Systematic History in China, Prof. CHU-HSI-TSU; *A Critical Comment on the Socialist Movement*, Prof. L. K. TAO; together with articles of legal and political interest. But the articles being written in Chinese defy our powers of interpretation.

NEW BOOKS.

English.

ASHLEY (SIR WILLIAM). Scientific Management and the Engineering Situation. (Sidney Ball Memorial Lecture.) Oxford University Press, etc. Pp. 28.

COHEN (JOSEPH L.). Workmen's Compensation in Great Britain. London: Post Magazine. 1923. Pp. 232.

[A statement of the existing laws, with some account of their working and the problems which it raises.]

DIESEN (EMIL). Exchange Rates of the World, January 1, 1914–December 31, 1921. Vol. I. Amsterdam, Berlin, Christiania, Copenhagen, Helsingfors, London, Paris, Riga, Stockholm, Zurich. Christiania: Okonomisk Literatur. 1922.

[An invaluable work of reference, with explanations in English, giving the rates of exchange in each of ten centres named above, *daily* for the eight years in question, on the principal countries of the world. It is proposed to continue the work and to bring it up to date.]

FORD (HENRY). My Life and Work. London: Heinemann. 1922. Pp. 289. 12*s*. 6*d*. net.

GIDE (CHARLES). Effects of the War upon French Economic Life. A collection of five monographs edited by Professor Gide. Oxford: Clarendon Press, etc. 1923. Pp. 197.

[The effects of the war on French Merchant Marine, Textile Industry, Finance, Commercial Policy and Labour are treated by five well-known experts.]

HAWTREY (R. G.). Monetary Reconstruction. London: Longmans. 1923. Pp. 147.

[To be reviewed.]

HECKSCHER (E. F.). The Continental System. An economic interpretation. London: Milford. Pp. xvi + 420. 4*s*. 6*d*.

HOWARD (WALTER). The Great Industrial Problem. London: King. 1922. Pp. 16. 6*d*.

HOWELL (J. RYSE). The Productivity of Hill Farming. Being the report of an inquiry in three typical districts. Oxford: University Press. 1922. Pp. 23.

JORDAN (HERBERT W.). How to Form a Company. (Fifteenth edition). London: Jordan and Sons, Ltd. 1922. Pp. 103.

[This well-known and useful handbook of special information has proved its utility by its frequent reissue since 1913. The summary of necessary facts is well given, and particularly the series of forms and documents which the incorporation of a public or private company require.]

KARLSBERG (DR. B.). History and Importance of the German Control of Emigrants in Transit (translated). Hamburg: Enoch. 1922. Pp. 149.

[The German original is mentioned in the ECONOMIC JOURNAL, Vol. xxxii.

MALINOWSKI (B.). Argonauts of the Western Pacific. An account of native enterprise and adventure in the Archipelagoes of Melanesia, New Guinea. London: Routledge. 1922. Pp. 527. 21*s*.

MARSHALL (ALFRED). Money, Credit and Commerce. London: Macmillan. 1923. Pp. 369.

NARAIN (BRIJ). Source Book for the Study of Indian Economic Problems. Lahore: Punjab Printing Works. 1922. Pp. 435. Rs. 3.

[An introduction to the study of official reports on Indian economic questions. The author is Professor of Economics at Lahore.]

LEE (JOHN). Industrial Organisation. London: Pitman. Pp. viii + 121. 5*s*.

RAŠIN (DR. ALOIS). Financial Policy of Czechoslovakia during the First Year of its History. (Carnegie Endowment.) Oxford: University Press. 1923. Pp. 155.

[The author, who has recently fallen by the hand of an assassin, was Minister of Finance for his country.]

RAU (B. RAMACHANDRA). Calcutta: University. 1922. Pp. 301.

SASTY (K. R. R.). The Madura Gilds. Madras: Law Printing House. 1920. Pp. 31.

Settlements and their Outlook. An account of the first international Conference of Settlements. London: King. 1922. Pp. 192.

SHADWELL (A.). The Engineering Industry. A chapter in industrial history. London: Murray. Pp. vi + 90. 1*s*. 6*d*.

SHELDON (OLIVER). The Philosophy of Management. London: Pitman. Pp. xvi + 296. 10*s*. 6*d*.

STOLL (SIR OSWALD). More Broadsheets on National Finance. London: W. J. Roberts. 1922. Pp. 183. 2*s*. net.

TILLYARD (FRANK). The Worker and the State, Wages, Hours, Safety and Health. London: Routledge. Pp. viii + 298. 10*s*. 6*d*.

VARMA (D. M. L.). The Labour Problem and its Complete Solution. A complete co-operation and co-ordination between capital and labour. Budaun: Gokulmwas. 1922. Pp. 188. Rs. 3.

[The book purports to be an application of communistic principles to individualism.]

WEBB (SIDNEY and BEATRICE). The Decay of Capitalist Civilisation. London: Allen and Unwin. 1923. Pp. vii + 180. 4*s*. 6*d*.

[Several of the above-mentioned books are to be reviewed.]

American.

FISHER (IRVING). The Making of Index-Numbers. Boston: Houghton. 1922. Pp. 526.

[Reviewed above.]

INGOLLS (W. RENTON). Wealth and Income of the American People. York, Pa.: Merlin. 1922. Pp. xiv + 321.

[It is estimated that when deflation is completed the gross income will not exceed $37,500,000,000.]

KOBAYASHI (U.). Military Industries of Japan. New York: Oxford University Press. 1922. Pp. 269.

LEVERMORE (CHARLES H.). Second Year of the League of Nations. Including the complete story of the Washington Conference with the complete texts of Treaties and Agreements. Brooklyn: Daily Eagle. 1922. Pp. 423.

LINCOLN (EDMOND E.). Applied Business Finance. Chicago: Shaw. 1922. Pp. 772.

CONANT (LUTHER). A Critical Analysis of Industrial Pension Systems. New York: Macmillan Co. 1922. Pp. 267.

MANGOLD (G. B.). Children Born out of Wedlock: a social study of illegitimacy, with particular reference to the United States. Columbia, Mo.: University of Missouri. 1921. Pp. x + 209.

WATKINS (GORDON S.). An Introduction to the Study of Labour Problems. Boston: Harrap. Pp. xv + 664. 10*s*. 6*d*.

WERTENBAKER (T. JEFFERSON). The Planters of Colonial Virginia. Princeton: University Press. 1922. Pp. 260.

[Contrary to the received belief that the land in colonial Virginia was early divided into large plantations tilled by indentured servants, it is shown from original sources that white yeomanry formed 90 per cent. of the landowners. These small holders were much injured by the Navigation Laws. There supervened the introduction of slaves, which arrested the immigration of English.]

WESTERGAARD (H.). Economic Development in Denmark before and during the World War. (Carnegie Endowment.) New York: Oxford University Press. 1922. Pp. xii + 106.

French.

BOURDEAU (JEAN). Tolstoi, Lénine et la Révolution russe. Paris: Alcan. 1921. Pp. 225.

Russie: La dette publique de la Russie. Paris: Puyot. 1922. 12 fr.

[Essays by Raffalovich and other well-known writers.]

German.

ELSTER (L.), and others. Handwörterbuch der Staatwissenschaften Vierte Auflage. Jena: Fischer.

[The fourth edition of this well-known dictionary includes an article by Dr. Stephen Bauer on a subject which he has made his own—legislation for the protection of Labour. An introduction explains the definition, origin and characteristics of such legislation. There follows a detailed description of enactments in different countries, priority being given to the more efficient systems. The section begins with Great Britain. The last section deals with international legislation.]

FISCHER (DR. CARL AUGUST). Vom Staatsbankrott. Karlsruhe: Braun. 1922. Pp. 141.

[A second much-altered edition.]

FUNK (DR. MARTIN). Wirtschaftspolitische Stellung und Weltwirtschaftliche Bedeutung der Freien Stadt Danzig. Danzig: Kafemann. 1923. Pp. 232.

[Articles by different writers dealing with various aspects of economic life in the Free State of Danzig are edited by Dr. Funk, who is the Director of the Statistical Bureau in that State.]

HAHN (DR. W.), and LILIENFELD-TOAL (A. V.). Die Neue Kurs in Russland. Jena: Fischer. 1923. Pp. 108.

GATZEN (WILLIAM A.). Gulliver's Währungsanierung: Die fehlende Special-wissenschaft des Wert-Messwesens.

[The author describes as an expert (*Berater*) in the special branch of science which deals with the measurement of value.]

HEYMANN (DR. HANS). Die Völkerbank. Berlin: Rowohlt. 1922. Pp. 61.

LIEFMANN (R.). Die kommunistischen Gemeinden in Nordamerika. Jena: Fischer. 1922. Pp. 95. 10 M.

[A concise account of experiments in communistic life.]

WINKLER (DR. W.). Die Statistischen Verhältniszahlen (Wiener Staatswissenschaftliche Studien). Leipsic. Deutiche. 1921. Pp. 178.

Italian.

BACHI (R.). L'Italia economica. Nel 1921. Turin: La Riforma Sociale. 1922. Pp. 460.

[The thirteenth issue of the year-book published under the auspices of *La Riforma Sociale.*]

CALANDRA (ANTONIO). La ripercussione dell' importa sul reddito. Turin: Bocca. 1923. Pp. 140.

MORTARA (G.). Prospettive economiche, 1923. Città di Castello: Società Leonardo da Vinci. 1923.

[A review of Italy's economic condition during 1922 leads to the conclusion that she has passed through the trough of the depression and that the beginnings of a trade revival are indicated. High prices in Italy and vigorous competition abroad are hampering her exports of silk, cotton and olive oil, but on the whole production of most commodities is increasing. It is interesting to note that in spite of coal difficulties, there is an improvement in the iron and steel industries, and railway traffic has increased, the various lines working with greater frequency and regularity. There is also a greater demand for hydro-electric energy in industry. National expenditure is slowly decreasing, the revenue slowly increasing. The withdrawal of immigration restrictions in the United States would, the author thinks, do much to assist Italy's economic revival.]

MARCONANI (F.). Il carattere contingente delle forme economiste. Turin: Viano.

PRATO (G.). Francesco Ferrara of Torino, 1849–59. Turin: Bocca. 1923. Pp.

[A memoir presented to the Turin Royal Academy of Sciences.]

ZUCCI (E.). Le banche di depositi. Roma: L'editoriale.

THE ECONOMIC JOURNAL

JUNE, 1923

METALLIC AND NON-METALLIC STANDARDS OF MONEY

When we approach the problem of stabilising the currencies of the countries whose circulating medium has been more or less disorganised—a problem of increasing urgency which is indissolubly connected with the revision of the Peace Treaty—we are brought up at once against the question of the choice of a basis for our monetary unit. That is, we are faced with the alternatives of a unit of the pre-war kind, equal to a certain quantity of precious metal, which must almost certainly be gold, or a standard unit fixed without reference to a metal of any kind. In the event of the latter alternative being adopted, coins of comparatively small value, made of some inferior metal, might be found useful for practical purposes. But there would be no necessary relation between the value of these coins and the metal they would contain.

It seems probable that the majority of the countries concerned will elect to return to a gold currency. Not that the gold standard, as it existed in England and Germany until 1914, will be restored in its entirety. Gold was then used in considerable quantities for transactions within the countries themselves, the Banks supplying, even for the purposes of the home trade, as much of this currency as was desired. This free exchange of coin will give way to the "gold exchange system," which was advocated by Ricardo as early as 1816 in conditions very similar to those existing to-day. The main feature of this system (which worked successfully in Holland from 1875 to 1914) is that the country's stock of gold is kept in the strong boxes of the Bank of Issue, where it serves to maintain the value of the national currency in relation to that of foreign countries, in other words, to ensure the stability of the rate of exchange. All the suggestions that have been made of late for the solution of the currency problem tend in this direction.

Nevertheless, though the problem may find its practical solution in the adoption of some such expedient, it by no means follows that this solution is the most correct in principle. And it is just when the supporters of a non-metallic monetary standard find their ideas condemned as fatal to public prosperity and dangerous to the State; when they are accused of further encouraging that policy of inflation of which so many Governments have been guilty, that it becomes essential to bring their theories out into the light of day, and show as clearly as possible on what grounds they rest. It can then be left to a future, when controversies have ceased to rage, to pronounce on the merits of the view which I desire once more to defend, *i. e.* the view that a non-metallic monetary system is better fitted than any metallic system to guarantee that stability in the unit of money which it is the aim of every sound system to achieve.

Since time is so important a factor in economic life, I presume it will generally be admitted that a currency is sound only if it can offer the best possible guarantee that the purchasing power of the unit of money shall not be affected by lapse of time or change of place. As soon as money ceases to be a purely passive connecting link in trade transactions, analogous to the kilogram, the metre or the hectoliter, it begins, despite its undoubted utility as a medium of exchange, to display mischievous propensities. As stated on p. 121 of my son's *Introduction to the Theory of the Stability of the Value of Money*, the medium of exchange must not interfere with the natural movements of prices and income.

In this connection I naturally use the term "purchasing power" in a general sense. There are dynamic forces constantly at work in our economic life which alter the relations between the factors determining by means of the supply and demand, the value of goods and services. The money prices of these goods will consequently also be subject to continual fluctuations. The purchasing power of the money unit in relation to individual goods cannot be constant. It would not be desirable, even if it were possible, to guarantee to the money unit an unchangeable purchasing power in this sense of the term. Consumption, like production, is affected by the fluctuations in the prices of individual goods; our economic life, with its efforts to make the energy at its disposal as productive as possible, necessarily responds to them. But these fluctuations in price do not affect the general purchasing power of the money unit. If there is a rise in the price of commodity A, so that a larger portion of the

nation's income must be spent on it, there will be less money left for other purposes, and commodities B and C will fall in price accordingly. The purchasing power of the money unit will have fallen in relation to A and risen in relation to B and C, but in relation to the satisfaction of the whole complex of human needs it will have remained unaltered.

General index figures have been adopted to illustrate the purchasing power of the money units of various countries. Their suitability for this purpose is open to criticism, since they deal with the prices of goods only, and with a very limited number of them. The question how and to what extent they could be improved is, however, beyond the scope of this article, and cannot be opened here. I merely wished to indicate in what sense the expression "purchasing power of the money unit" was to be interpreted.

A rise in the general index figure means that the purchasing power of the money unit has diminished; a fall in the figure means that it has increased. A movement in either direction, therefore, indicates that there has been a change in the ratio between the available supply of the medium of exchange in its various forms, and the actual money requirements of the community. Those who hold that a healthy money market, which allows of the perfect interplay of the forces of supply and demand for goods and services, is dependent on the existence of a money unit of constant purchasing power, will agree with me in desiring to see a condition established in which the provision of money may adapt itself with the maximum facility to the fluctuating demand for money. We should be guided in our choice of a monetary system by the best guarantee offered of a complete adaptation of the provision of money to the existing demand.

I will now endeavour to state briefly why I consider that a metallic system can never give the required guarantee, and why a non-metallic system alone can do so.

In a metallic system three conditions must be fulfilled in order to ensure equality in value between the money unit and a specified quantity of gold. Firstly, everyone who desires to have standard money coined must be able to claim this as a right, subject only to the payment of the mintage cost, and to a minimum limit of size for such transactions. This arrangement is general except in England and in the United States of America, where the Mints are open free of cost for everyone. Secondly, the State must not restrict the transport of the standard metal either into or out of the country. Thirdly, money

other than the standard must be exchangeable for coin of the realm, at a fixed rate and at all times.

Each of these conditions is essential to the system, and if any one is not complied with, the equivalence of the money unit and the corresponding quantity of the standard metal breaks down. Consequently a metallic standard cannot guarantee the fixed value of the money unit. For this purpose we require a system which enables the supply of money to adapt itself immediately, automatically and of set purpose to the existing demand. This a metallic standard can never achieve. My principal objection to the metallic standard is not only that for so simple a business as the settlement of debts and claims it can find no medium less costly than gold and silver, so that quantities of these expensive commodities must lie at call in the Circulation Banks. This is indeed a costly expedient, but as the system does not guarantee the fixed value of the money unit, the sacrifices which it entails fail to achieve the object for which they are made.

For the supporters of a metallic standard, the fixed value of money means no more than an equivalence between the money unit and a quantity of the standard metal, and they choose for the latter a very precious metal of great durability, on the value of which the yearly fluctuations in the volume of production have comparatively little influence. Hence the stock once produced is preserved, and the further quantities which become available flow into a reservoir of such capacity that the value of the unit is but slightly affected by the addition of the yearly production of the standard metal. Thus it was hoped that the quantity of currency would be adjusted to requirements, while at the same time the purchasing power of the unit would be kept reasonably constant.

It is, however, not difficult to see that so far from guaranteeing the constancy of the purchasing power of the unit, the conditions necessary to the existence of a metallic system constantly jeopardise it. Obviously there can be no question here of a deliberate adjustment of the supply of money to the existing demand.[1] The production of the standard metal is a branch of

[1] I will not stop to discuss Irving Fisher's plan, which has been repeatedly considered here in Holland, *i. e.* the attempt to ensure a fixed value for the money unit while retaining a metallic standard. The idea is that the Government should nominally increase or reduce the weight of the gold coin according to existing requirements, *i. e.* abolish the relation between the value of the gold bullion and that of the money unit. Fisher thus admits by implication the correctness of my contention that the gold standard cannot guarantee the fixed value

industry, like any other, and develops without reference to the community's need for a monetary unit of fixed value. Gold was produced in the first instance for the commodity market, but its adoption as a medium of exchange greatly stimulated production. Hence the right, existing in gold-using countries, of turning the gold at will into currency, a right which in Anglo-Saxon countries is not even qualified by a charge to defray the cost of coinage. Those who in these countries desire to turn bullion into coin suffer no more than the loss of interest incurred in the interval required for minting, and that only in the event of standard coin not being immediately available.

The discovery of rich goldfields must inevitably weaken the purchasing power of the money unit, first in the gold-using countries, and then through the influence exerted by the rise of prices in these countries on the international commodity markets in the world at large.

Although the index figures in general use are not ideal as a standard for determining the purchasing power of money, yet they undoubtedly confirm my theory by verifying the changes which I should expect to follow on variations in the production of gold. Thus Cassel's valuable graphic representation, on p. 410 of his *Theoretische Nationalökonomik* shows the connection between the curve of the gold supply and that of the level of prices.[1] And Bendixen was not wrong when he drew a comparison between the effects produced on the economic life of the community by the work of the gold-digger and the state issue of paper money. Money is created when the gold-digger finds gold, and coins or sells it to a Circulation Bank, or equally in the modern business community when a Bank grants credits to its clients in excess of the cash deposits which it holds. Bank credits can be regulated so as to ensure that they will not jeopardise the fixed value of the money unit. But no such rule can be made for the production of gold, the quantity of which

---

of the money unit. But it would surely be better to relieve the community altogether of the necessity for the use of the costly yellow metal as a basis for its monetary system, and to utilise for the introduction of a non-metallic system the instrument provided by the general index figures, which are indispensable even in Fisher's system.

[1] That the parallelism of the two curves is not more exact is attributable partly to the fact that the index figures used by Cassel do not by any means illustrate the actual general level of prices of goods and services, and partly to the fact that the production of gold is no longer the only factor determining the amount of money in circulation, the development of banking facilities having come to play an important part. If the index figures used had covered the ground more adequately, there would have been a closer connection between the two curves.

is controlled by causes which are quite independent of any views that may be held regarding the desirability of a constant money unit.[1]

The objections to a metallic standard are even more serious when we consider not the general theory of the subject, but the practice of individual countries. The Government and the Banking authorities of a particular country may be alive to the desirability of keeping the value of the money unit constant, and most anxious to secure this in practice. Yet their efforts are likely to be frustrated by the influence which fluctuations in gold production exert on the level of prices both at home and abroad. And further, their own standard will inevitably be affected by errors in the financial policy of other countries, where for some reason or another no attempt has been made to secure a money unit of fixed value. If the money unit in one country becomes depreciated, gold will be exported, and as a natural consequence the value of the money unit in other countries will depreciate also.

Holland has recently experienced the truth of this theory. Although during the war all the belligerent countries prohibited the export of gold by private individuals, yet owing to the depreciation of their paper currencies, gold actually left these countries in a continuous stream, and a large quantity found its way into Holland. This stream she could not have diverted, unless she had added to the prohibition of the export of gold, imposed in an evil hour, a countervailing order prohibiting the import of gold at the mint price then in force. This was the course adopted by Sweden and Spain, which thus emancipated themselves completely from the gold standard. Holland, on the other hand, saw her stock of gold increase from about 160 million florins in 1912/1913 to 730 million florins on April 13, 1918, and there was an accompanying rise in the circulation of notes from about 300 million florins in 1914 to over a milliard. This stupendous inflation, apart from the equally marked increase in the current account balances at the Netherlands Bank and the increased volume of the deposit business, must inevitably have caused a sharp fall in the value of the money unit, as soon as the shrinkage in the demand for money followed the turn in the tide of business. There is not the least doubt that the rise in the level of prices in this country, with all its deplorable con-

[1] Under a non-metallic system of money an increase in the gold supply does not affect the general level of prices, being in no wise different from an increase in the production of any other class of goods. In gold-producing countries an increase in the production of gold would, other things being equal, lead to a fall in prices.

sequences, is mainly due to the fact that when the supply of goods began to diminish, the supply of money, instead of being correspondingly reduced, had increased to much more than three times the pre-war quantity.

The increase might indeed not have been quite so great, but some increase was inevitable so long as Holland adhered to a metallic basis for her currency. Even if the Bank had restricted itself to the issue of gold certificates against the stream of gold pouring into the country, and had kept a cover of 100 per cent. on the new notes issued against gold imports, the money in circulation would still have been increased by half a milliard florins.

The same difficulty is being experienced in the United States of America to-day. According to the latest returns, the gold supply in the Federal Reserve Banks now amounts to about three milliard dollars. Not only is this too much for the requirements of the country, but it is undesirable that so large a share of the national wealth should be locked up in gold at the Banks. Under a gold standard, however, the surplus can leave the country only when a fresh period of currency inflation has set in. The *Economist* of January 13, 1923, expressed a reasonable doubt whether the Americans would accept the position, and considered it not improbable that an arrangement on the basis of fixed price-index figures might be adopted to guard against further fluctuations in the general level of prices. This is not, however, I am convinced, compatible with the maintenance of a gold standard.

A metallic standard can afford no guarantee of the preservation of a fixed money unit. The variation known as the gold exchange system, useful inasmuch as it diminishes the volume of gold in current use, is even less able than the unmodified gold standard to guarantee the constancy of the money unit. A general acceptance of the gold exchange standard would considerably limit the demand for gold for current transactions, and would leave larger quantities of the metal for the industrial arts. Any increase in gold production, or an inward flow of gold from other countries, finding the industrial market clogged, would flood the money market, and cause a correspondingly greater depreciation of the standard unit.[1]

[1] The anticipation of a general adoption of the gold exchange standard, and of the consequent diminution in the use of gold, will necessarily depress the value of the metal (in relation to goods and services) and so prevent a permanent restoration of pre-war prices in gold florins, gold francs, etc.

A non-metallic standard, on the other hand, is eminently fitted to ensure the constancy of the money unit. Even Lansburgh, staunch supporter as he is of the gold standard, admits in his sixth letter devoted to the question of exchange, that it is quite possible to conceive a sound monetary system entirely apart from gold. If all supporters of the gold standard would admit as much, this would be a great step in advance. It seems to me, however, that we must go farther and maintain that only a non-metallic system can realise the object at which we aim. Under a system of this kind, money is created by agencies which are capable of making the supply adapt itself to the demand, and thus of keeping the value of the money unit constant. This is done by variations in the rate of interest. The demand for money is, of course, beyond the control of these agencies, depending as it does on the interplay of the forces of commercial life. But the supply of money can be regulated by these means at will, and quite independently of what may be happening elsewhere. Depreciation and inflation of money beyond its frontiers will leave the value of money entirely unaffected in a country which has adopted a non-metallic system, and has determined that this value shall not be weakened.

I do not propose to discuss here the details of a non-metallic system of money, as I do not wish to divert attention from the main doctrine. The arrangement could, however, be extremely simple. I prefer to close this essay with a brief consideration of the objections that have been raised against a non-metallic standard. It may perhaps be argued that even if the system were more successful than any other in guaranteeing the constancy of the money unit, it might yet involve practical difficulties so serious as to make it unworkable.

To throw the entire gold standard overboard involves the loss of a definite use for gold, and consequently a fall in its value. The experience of the latter years of the nineteenth century, when silver was demonetised, clearly proves that the value of precious metals depends very largely on the expectation of their being used for currency purposes. What might *a priori* have been expected did indeed take place, and would take place again. Silver depreciated considerably not only in terms of gold, but in terms of goods and services. Hence we may conclude that the abandonment of the gold standard would involve a loss for those countries which have a more or less considerable quantity of the metal at their disposal. Countries such as the United States of America and Holland, whose supplies had greatly

increased of late, would be heavy losers. This is the first objection which is raised to the introduction of a non-metallic monetary standard.

It is very regrettable that, despite repeated warnings, the Dutch have persisted in investing a considerable portion of their national wealth in gold, and that, moreover, at a time when the depreciation in the purchasing power of gold had undoubtedly set in. It is no less regrettable that they were subsequently induced to purchase large quantities of German paper money, which was already rapidly falling in value. Unless Holland decides permanently to retain quantities of gold out of all proportion to the needs of either her home or foreign trade, and constituting, moreover, an altogether unjustifiable luxury, she must inevitably lose on her gold reserves. As I argued in 1917, she cannot rid herself of the gold unless the value of the florin should fall in comparison with the money unit of other gold-using countries.[1] This means that we pay high prices for our imports, and that when we come to export our gold, we shall receive in exchange less value than we originally gave for it. This loss is now unavoidable.

The introduction of a non-metallic system would not, however, involve the community in any further loss. Since a gold standard is not essential to trade, and since the fixed value of the florin can be much better secured on a non-metallic basis, the nation will not lose but gain by turning its stock of gold into useful goods,[2] converting, as Adam Smith said, this portion of its unnecessary highways into fruitful land. Thus, even if the introduction of a non-metallic system should cause the market price of gold to drop to the level of its commodity value—an extremely improbable contingency—the loss of its gold would still be a matter of indifference to the community at large. But so long as any other country retained the gold standard, gold would continue to have more than its mere industrial value, and the nation which adopted a non-metallic system would enjoy this margin of gain.

The only sufferers from the change in the function of gold

[1] This the florin has actually done for the past three years. I certainly could not have foreseen at the time of writing that in spite of this depreciation we should continue to retain the gold which poured into the country.

[2] The transaction would react injuriously on the Netherlands Bank only if (in consequence of the change) the universal price of gold dropped below 1648 florins per kilogram. As long as this limit was not reached, the Bank would not suffer by getting back the notes originally issued against gold and now withdrawn.

would be the owners of gold-mines, and hence the countries which produce and export gold in considerable quantities. Neither Holland nor its colonies produce gold on a large scale. We should, of course, feel some adverse effects, from the backwash of the loss in purchasing power of the countries affected. But on the whole the change would be to our advantage, provided we did not lag behind other countries in adopting it.

Another objection adduced, *e. g.* by Diehl,[1] is the fear that the public would have no confidence in non-metallic money, and that this could not therefore be used as a medium of exchange. There is not, however, the least ground for supposing that confidence would play any part in a situation where supply and demand are the determining factors. The "flight from the crown" in Austria, and the "flight from the mark" in Germany are not only comprehensible, but are directly due to the financial policy pursued by these countries: they do not indicate an aversion on the part of the inhabitants from non-metallic money. Had the Governments of these two countries taken precautions to ensure that the purchasing power of their money units were maintained at a uniform level,[2] there would have been no flight from the mark, etc. The latter is interesting purely as an illustration of inflation, and the valuation of paper marks outside Germany, as an object of speculation, has nothing whatever to do with the question of the utility of this kind of money as a medium of exchange.

It is true that non-metallic money is acceptable only because and as long as it is known that the issuing authority will accept it as legal tender. This does not, however, mean that public confidence plays any part in fixing the value of money—it only explains why this money is generally negotiable, and why it is accepted as a medium of exchange.

I need not devote much space to the argument that a metallic system is essential for the maintenance of the parity of exchange. The level of exchange is determined by the relative purchasing

[1] *Jahrbuch fur Nat. Oek. and Statistik*, 1916. Vol. 52, p. 721. For the other side see Heyn in *Weltw. Archiv.*, 1917, p. 62; also Dr. van Dorp in *De Economist*, 1917, p. 791, for further details. The latter held that the changes in the relative indebtedness of different countries explained changes in the value of the money unit. A change in the purchasing power of money in the home market can exert an influence on the balance of payments. The latter does not, however, determine the purchasing power.

[2] It must be frankly admitted that this omission is largely attributable to the late war and its termination. No one would maintain that these countries could have preserved a metallic system during all these years. None of the belligerent countries did so.

power in the home markets of the money units of the countries which draw bills and have bills drawn on them. In normal times if the home currency becomes depreciated, each delivery of goods, stocks or claims to foreign countries, even to a limited extent, tends to restore the parity of exchange. Gold could certainly be used for this purpose, but its use is not essential, and in practice it plays but a minor part. If the depreciation did not supply its own corrective by the alteration in the balances of payments which it brings into force, the issue of cheques, supplemented by the traffic in bills and stock, would achieve the same results as the export of gold. And in abnormal times, such as the years following 1914, the metallic basis of the money systems proved wholly inadequate to guarantee a fixed rate of exchange—a fact borne out by the general prohibition of the export of gold.

We now come to the last, and apparently most serious objection to a non-metallic system, viz. that as long as there are trees in the forests the material for its money unit will be available in unlimited quantities, while the production of the precious metals is strictly limited and likely to remain so. To this I would adduce two answers. In the first place an essential condition of a sound, non-metallic monetary system is not only that the State shall refrain from the direct creation of money (always excepting the small coin which is legal tender only in limited quantities), but that the State as a borrower from the note-issuing Bank to which the regulation of the supply of money is entrusted shall enjoy no preference over any other private person. And in the second place, whatever arrangement may be considered the most competent to ensure the constant value of money, the proper working of such a system requires that the maintenance of the value of the money unit shall be recognised as a Government function of paramount importance. If this condition is fulfilled there is no danger in a non-metallic standard; without it, the maintenance even of a metallic standard is not assured.

For all the foregoing reasons I am convinced that the development of currency systems tends definitely towards a non-metallic standard. This tendency will be encouraged rather than retarded by the economic events of the past few years, and by the researches into currency problems which these events have stimulated. At the same time I am quite prepared to admit that the change cannot be expected to take place in the immediate future. The most urgent necessity of to-day is the stabilisation of currency. And if we are not yet ready to accomplish this by means of a non-metallic system of money, we shall still have made great

progress if we use the gold exchange standard for the purpose. This will clear the way for a currency system completely independent of gold—the solution to which I am convinced that the future belongs.

C. A. Verrijn Stuart

University of Utrecht.

THE SITUATION IN THE RUHR

It is well known that the events in the Ruhr are due to certain shortages in the German deliveries, of which the economic importance—the legal questions will not be touched on here—can be gathered from the fact that the most serious of them, that in coal, amounts to 15·6 per cent., according to the French estimate, and according to the German to 11 per cent., of the annual obligation. In truth all the shortages are only a trifling part of the German deliveries stipulated for in the Treaty of Versailles. Even though one does not accept the Rathenau estimate of 45·6 billion gold marks, or the later German estimate of over 50 billion gold marks, still, according to the calculations of the Reparation Commission, these deliveries constitute by far the greatest economic effort ever accomplished by any nation after defeat in war. On account of these shortages, M. Poincaré, as he announced to the world at the beginning of January, sent a commission of engineers and officials into the Ruhr district to obtain more coal, and particularly more coke for France, than she had hitherto received from Germany. This initial aim has not been attained.

There are several distinct phases discoverable in the prosecution of this aim to-day. The object at first was simply to compel the deliveries of coal, which the Germans were already providing, to France and Belgium and to the occupied territory on the left bank of the Rhine. Then, the coal cars concentrated in the stations, and not those actually in transit, became the objective of French desires. Wherever such a concentration was discovered by aviators, a strong military force immediately took possession. But this also came to an end when the Germans ceased such concentrations. Then it was decided to seize the coal itself, which could be effected most easily at the dumps, where reloading alone was necessary; for which purpose Poles, Italians and all sorts of French were used, mostly men who were neither used to nor equipped for hard work. The result was disappointing, not only in quantity but also in quality. To all appearances this third phase has also come to an end. The seizure by the French of an increasing number of the shafts themselves may be

connected therewith. Whether greater results can be obtained therefrom is very questionable. For the expulsion of the German railway officials and workmen—it is a case of exile and not of strike—is beginning to make itself felt. The complicated equipment of the railways in the Ruhr has been so damaged by the French operators that in many particulars it fails to function. To destroy was easy, but to repair is apparently by no means so easy of accomplishment.

That the general result of this great effort is very small seems clear. According to statements made at Paris, published in the *Manchester Guardian* of April 5, 1923, there had been transported to France since January 11, 91,000 tons of coal and 43,000 of coke. German estimates covering the same period are about 100,000 tons larger. But which figures are correct is a matter of small consequence. For in the same period the French would have received over four million tons from Germany, whilst even according to the most favourable figure the French have actually received but 5½ per cent.

This failure to obtain coal and coke has resulted not only in the French iron industry not receiving the benefits promised, but, on the contrary, in its fuel situation growing distinctly worse. Even before the war there was admittedly an over-production of iron ore, and consequently of iron and steel, and an under-production of coal and coke as well as in the iron-using industries. On balance there was an exportable surplus of ten million tons of iron ore and 600,000 tons of iron and steel, against a requirement of three million tons of imported coke and a considerable demand for the finished products of the iron-using industries. The Peace Treaty, which neglected most economic considerations, has greatly increased this lack of internal equilibrium. The rich iron ore deposits of France have been so enlarged that she possesses to-day, according to her own estimates, more than one-half of the sources of supply. Similarly her blast furnace and steel industries have been increased through the wonderful German plants in Lorraine, which were primarily used to supply the finishing works in the rest of Germany. The demand for coke has thus been increased, and it has become necessary to find outlets for a very large amount of iron and steel.

There are three possibilities of ameliorating this unsatisfactory condition. The first is to increase the French production of coke and to enlarge the iron-using industry of France. For this, however, neither the productive power nor the sales-organisation is sufficient. There has been hardly any effort to adopt

this course. The second possibility is through a business understanding. This has been proposed by Germany, and Germany to-day is still willing to carry out such a plan. At times the eastern group of the French iron-masters, which can be called the Bernhard group, has seemed to take an interest in this proposal.

But the makers of the Versailles Treaty, to whom the western group under Schneider-Creuzot stands closer, have preferred the third possibility. They wished to substitute dictation for agreement, political power for economic reason. They overlooked the impossibility of satisfying economic needs by force. This mistake of the French soon became apparent. On January 1, 1923 there were 221 blast furnaces in France, of which 116, or slightly more than half, were in blast. Of these, according to a statement in the trade paper *L'Usine*, 26 were blown out in January and 20 in February. According to these statistics the number of blast furnaces in operation on March 1—later statistics are not at hand—had fallen to 70, or less than one-third. The east suffered most. The Schneider group in the west could protect itself, whereas the Bernhard group in the east could not.

On account of this undeniable failure, the first and only admitted purpose of Poincaré has disappeared more and more into the background. It was soon no longer a secret that the present aim is to cut off the occupied Ruhr district from the rest of German economic activity, and thereby to damage German industrial and commercial life to such a degree that Germany will not resist further dictation. It cannot be denied that this new aim has been technically reached, in a general sense. In the first instance this has been achieved by the restriction of transportation. This has been carried through in such a manner that the trunk railway lines in the west running along the northern and southern borders of the newly occupied region have been put under military control, and everywhere along the eastern border and elsewhere carefully planned control stations of railway traffic have been established. At present only about ten trains, averaging fifty cars, are allowed to pass out of this newly occupied region per day, that is six and a half with Reparation coal for Italy, two for the English occupied territory around Cologne, and the remainder for Holland and Switzerland. The river traffic, as well, has been restricted in much the same manner. Such a strict watch is maintained on the Rhine that it can only be used, practically, for foreign freight traffic, and through the blowing-up

of the bridge over it at Henrichenburg, the Rhine-Herne canal, of which the water is drawn mainly from the Weser, has been blocked in its most important section.

To this rigid system of the control of transportation is added the control of exports. The French have, as is well known, proclaimed a prohibition of exportation, except under a licence granted by them on payment of a tax of 10 per cent. As these measures of the French are considered by the Germans as violations of the Versailles Treaty and of International Law, the German economic organisations, especially those of the workmen, have decided to refuse obedience to the French proclamations. The German working-men's organisations in particular adhere to this decision most tenaciously, even when the French, taking advantage of this German position, make all sorts of important German transactions dependent on the fulfilment of trivial French formalities.

Though it cannot be denied that, technically, this isolation has been highly successful, nevertheless it has not accomplished its politico-economic purpose. To be sure, the economic life in both the occupied and unoccupied territories has been unfavourably affected. This is natural. But the consequences have not in the least brought about the intended political results. The contrary is the case. The spirit of determined resistance has been strengthened. For the Ruhr is the home of the most stubborn part of the German race, whose will grows stronger when opposed.

As far as the economic situation which has been created by the excision of the Ruhr is concerned, it cannot easily be described. But however great may be the differences in the individual branches of industry and in various places, well-pronounced particular features stand out. It is of the utmost importance that the demand for goods in the occupied region itself is so large. There is perhaps no district in the whole world which, so far as industrial products are concerned, can provide for itself with such completeness. In so far as producers do not work to supply the demand in the occupied region itself, they manufacture to provide a stock for the future. Finally, a third consideration: the producers and their plants in many branches of industry have been overstrained for the last ten years. Production has never been as efficient as possible, but rather as rapid as possible. To-day thought has been taken for improvement and enlargement of the production plants, which explains why in spite of its excision the Ruhr region suffers so little from unemployment.

This also explains why the French Government again changes its stated aim. It appears at present to desire to stop economic activity in the Ruhr region altogether. At the moment it cannot be foreseen how the Ruhr industries will be affected by this new situation. They are, in themselves, too many-sided to be effectively controlled.

As far as unoccupied Germany is concerned, the cutting off of that part of its territory which is more important than any other in supplying raw materials, has naturally had consequences which are analogous to those of the blockade. But, contrary to war conditions, unoccupied Germany is to-day open to foreign countries. In the neighbouring foreign countries there has developed an active competition for the German market. The offers of coal by England, Poland, Czecho-Slovakia and Austria exceed Germany's present capacity to utilise them.

This strange situation is to be explained also by the failure of demand through the stabilisation of the mark, which, like all stabilisation, has had this consequence. The expected has happened. As soon as the continuous decline of the mark was arrested, it became apparent that in many branches German industries were working at a greater production cost than the industries of foreign nations.

Finally, the cutting off of the Ruhr has had an influence on foreign countries. This is not everywhere the same. While on the one hand the stoppage of the purchasing power of the Ruhr district, and also of the whole territory on the left bank of the Rhine, is felt in the world market, so, on the other hand, is the absence of its competition. In some branches of industry the first is most felt, in others the second.

Naturally at first the disappearance of the German competition was most apparent. It was felt particularly in the coal and iron industries, especially as it was immediately followed by a like falling off in the French and Belgian iron industry. The strong unsatisfied demand which sprang up for these products drove up tremendously the prices of coal, coke, iron and steel.

But the importance of all this must not be overrated. Everyone realises that this is no more than a momentary episode. This strong demand will subside in a short time and will even swing in the opposite direction. Eventually the stocks, which are beginning to accumulate in unreasonable quantities, must flood the market. Still more important is the fact that the price increase occurs first in raw and auxiliary materials. This means, therefore, to other industries an increase in their own production

costs, and makes it difficult for them to take full advantage of the removal of the Ruhr competition. If, on the one hand, the effects of the disappearance of this competition make themselves felt immediately, this is not true in the same degree as the disappearance of its market. The world market will be affected thereby much more slowly and also more universally, although it may be difficult to prove its effects in any one particular instance. If all these factors are taken into consideration, one reaches the conclusion that on neither side will be found causes which will force a speedy termination. It is true that the sufferings and the damages caused to the Germans are the greater, but the French have managed to counterbalance this. For they have, as is well known, created an atmosphere of resistance in the Ruhr district which the Germans themselves never could have produced. In the Ruhr public sentiment, and not the amount of suffering, will turn the scale.

On account of this balance of forces the prospect for the future is very gloomy. For even if the French measures are directed against the civil population, the German nation will indirectly be the hardest hit. Its economic and financial organisation is suffering now even more than through the war, and only in so far as its aim is the destruction of its productivity can the occupation of the Ruhr be considered a success. The menace alone of the occupation has had a disastrous effect.

In the middle of 1922 the situation in Germany had considerably improved as a consequence of the great tax reforms. Previously, while the question of internal order in Germany was still unsettled, and while also such far-reaching exterior political decisions as that of Upper Silesia were still pending, it was impossible to balance the German Budget. Just at that time this was accomplished to a noteworthy degree. In the four months from April to July the income was sufficient, not only to cover all disbursements of internal administration, and not only all the deficits of the State-owned undertakings, particularly those of the railway and the postal services, but also to contribute a sum of 62 billion paper marks to the carrying out of the obligations of the Peace Treaty, which was in round figures equivalent to 340 million of gold marks. This was a hopeful beginning, which with reasonable care could have been much further developed. Such careful development was hoped for from the Paris Bankers' Conference, which had been called together in Paris at the request of the Reparation Commission, with Mr. Morgan participating.

The situation then developed that France did not wish such a solution. Poincaré destroyed all hopes by causing his representative, M. Sargent, to declare at this Bankers' Conference that he would not agree to any measures which would modify the London ultimatum. He took every opportunity of stating that he would not permit in the discussions on any account a suggestion of any new arrangement of the reparation question.

This prelude to the occupation of the Ruhr had as a consequence the terrible fall in value of the mark which occurred in the second half of 1922. The dollar rose from 317 marks in June to 7589 in December. This frightful monetary depreciation upset all the calculations in the German Budget. The expenditures increased in these few months, largely because of this monetary depreciation, twenty-three-fold, and it was impossible to increase the income proportionately. There was nothing else to do but to cover the disproportion between expenditure and income through the medium of the floating debt. Whilst this had grown in the four months of April to July only to 25·9 billion marks, that is to say, 31 per cent. of the national revenue for the same period, it now rose in the last four months of the year to 1163·6 milliards, or 260 per cent. of such revenue.

What had been brought about merely by a threat has been greatly aggravated by the actual occupation of the Ruhr. For the cutting off of the most populous and economically the most highly developed territory in Germany means at the same time a very considerable decrease in State income and a still greater increase in expenditure. How large this decrease in income is cannot yet be stated exactly.

The effect on the debit side of the ledger is infinitely worse. First of all in the nature of things the Government cannot but make good all damages suffered by its citizens, mostly resulting from their having faithfully fulfilled their duties as such. Besides the particular sufferings of individuals there must be taken into account the general sufferings of the population as a whole. Preventive measures are partly required, but the principal matter is to relieve already existing want. For instance, special measures must be adopted to succour the greatly endangered children. Similar measures must also be adopted for all the economically weak elements of the population. Thirdly, the emergency requirements of the State-owned enterprises are of no less importance. One is justified in saying that up to the beginning of the year the situation of the railways was promising. The divisions between the ordinary and extraordinary budgets were made

M 2

on a healthy basis, and in the ordinary budget a condition of equilibrium had been reached. All this the occupation of the Ruhr has destroyed. In the entire occupied region the administration of the railways produces hardly any income, but it also necessitates not merely the former but greatly increased expenditures on account of the thousands of exiled railway officials and workmen. In the unoccupied territory as well, the traffic of the railways has been affected by the necessity of putting into operation difficult and round-about routes, entailing increased costs.

These observations should suffice to make it intelligible why the sum total of the floating debt, arising from discounted Treasury bills, grew from 1495 milliard marks on the 30th of December, 1922, to 6600 milliards on March 29, 1923, that is to say, increased five billions in three months.

It would be an error to deduce from these figures that the occupation of the Ruhr can no longer be borne. The present resistance is hardly affected thereby. But it is true that if this occupation continues for a long further period, the power of production of the German nation will be so weakened that for a long time to come reparation payments will be quite out of the question. After all, it is only on the German power of production that the settlement of the reparation question depends. As Germany is ready to pay all she can pay, and never will pay more than she can, the Ruhr occupation, in so far as it weakens Germany's power of production and ultimately destroys it, creates a cost which will be borne by Germany's creditors. Germany's ability to produce for France and the rest of her creditors will grow less and less the longer the occupation of the Ruhr lasts. What can be done by Germany to-day it will soon be impossible for her to do. This is as certain as a law of mathematics, and this Poincaré should consider if he really wants "France to be paid and to be saved from financial disaster," as he stated at Dunkirk. The occupation of the Ruhr is the worst conceivable means for achieving this result.

HERMANN SCHUMACHER

University of Berlin.

PRICES AND WAGES FROM 1896–1914

1. WRITING in 1911 Professor Ashley summarised the recent changes in gold production as follows: "The output began to increase from 1890 onward by a rate of from two to four million pounds sterling a year; in 1897 the increase on the preceding year leapt up to seven millions, and in 1898 to ten millions more. It was checked by the South African War; yet in 1901–2 it remained well above what it had been in 1897. In 1903 its upward march was resumed; and in six years it reached its present figure of well over ninety millions annually, or between three and four times as much as the annual output during the forty years 1850–1890. . . . There has been added to the world's stock of gold during the last fifteen years, a quantity considerably greater than the total amount of coin and bullion previously existing in Europe and America and the Colonies: a quantity more than half as much as the world's total previous stock in all forms."[1] As a result, "we are probably well within the mark in regarding a rise of 10 or 12 per cent. in the general cost of living as the effect—to the present (then) time of the new gold supplies."[2] Accompanying this marked expansion in the gold supply and associated rise in the general level of prices there was a marked alteration in the trend of real wages. Whereas during the twenty years before 1896 the trend of general prices had been downwards and the rate of real wages had been rising, the reversal of the price trend in the later nineties was accompanied by a check in the upward movement of real wages. Indeed, apart from the shifting of workpeople from lower paid to higher occupations, the rate of real wages actually declined between the later nineties and the outbreak of the Great War. This colligation of events suggests *prima facie* that the new gold, through the influence it exerted on the general level of prices, *caused* the injury to the rate of real wages which accompanied its advent. The purpose of the following pages is to investigate that thesis.

2. A certain scepticism is aroused on this matter so soon as we extend our historical perspective. From the end of the Napoleonic

Gold and Prices, p. 17. *Ibid.*

wars till 1914 English wholesale prices show four distinct trends, as distinguished from less fundamental cyclical movements. The facts, as recorded in Jevons' and Sauerbeck's figures, are brought out very clearly in the following table :—

Year.	Index.	Percentage change.
1821-6	154	− 25 %
1846-50	116	+ 20 %
1871-5	138	− 40 %
1894-8	82	+ 25 %
1906 10	102	

Over the first trend period, from the close of the Napoleonic wars till about 1850, when prices were falling markedly, the wage-earning classes were very badly off, and the rate of real wages was, at best, rising slowly. Over the second trend period, however, from the early fifties till the early seventies, when prices were rising, the rate of real wages was also rising fast. Thus the association between a falling price trend and a gain to real wages, and a rising price trend and a loss to real wages, which appears during the two contrasted price trends subsequent to 1870, is balanced by a contrary association during the two parallel contrasted periods prior to that date. This circumstance makes it plain that our problem is not an entirely simple one and that some caution in approaching it is necessary.

3. Let us begin then by disentangling carefully several distinct things for which the advent of new gold *might* be responsible. Plainly, a substantial influx of it must, under a gold standard system, raise the general level of prices above *what it would have been* if everything else had remained the same and the influx had not taken place. But it will not raise this level *above what it was before*, unless—banking arrangements and so on being given—the increase in the gold fund is more than proportionate to the contemporaneous increase in production. Therefore, when it is said that, over any period, an influx of new gold has raised prices, what is meant is that an *excess* of new gold above what is required to keep pace with the production of commodities has raised prices. Plainly, however, an excess of this sort might result either from an expansion in the gold supply, or from a contraction in production, or from a combination of both these things. This fact reveals an important ambiguity. When there is an excess of gold supply in the above sense, and, therefore, a rise in the general level of prices, several distinct factors have been in play, all of which may conceivably exercise a causal influence on the real rate of wages. First, there is any absolute change in

the gold supply which may have taken place independently of the circumstances of commodity production here; secondly, there is any absolute change in commodity production here that may have taken place independently of the circumstances of the gold supply; thirdly, there is any change in the gold supply that may have taken place *in consequence of* a change in commodity production here; and, fourthly, any change in commodity production here that may have taken place *in consequence of* a change in the gold supply. Finally, there is any change that may have taken place, as the combined result of any or all of these factors, in the level of general prices. It is plain that an upward movement of commodity production here, whether due to non-monetary causes, such as inventions or capital accumulation, or to the indirect influence of the increased demand for our commodities in terms of foreign gold, is likely to react favourably on the rate of real wages, and a downward movement unfavourably. There is no apparent reason why an increase in the gold fund, independently of any effects it may have on production or on prices, should affect the rate of real wages at all. A change in the level of general prices, *however caused*, may, it would seem *prima facie*, affect this rate in so far as economic friction causes the money rate of wages to lag behind price movements. Thus, if production expands and prices fall, the rate of real wages should rise more than it would have done if production had expanded equally but prices had not fallen. It is essential to our purpose that these distinctions should be kept clearly in mind.

4. Professor Bowley has shown that between 1880 and 1898 the average of all incomes, wage incomes and non-wage incomes together, increased in money some 15 per cent.; between 1898 and 1910 some 20 per cent.; while, when allowance is made for price changes, "the average real income increased much more than 16 per cent. in the first period and much less than 20 per cent. (if indeed it increased at all) in the second period."[1] More generally, from the early seventies to the early nineties the country's aggregate income of goods and services was expanding strongly, and after that the expansion greatly slowed down. It is plain that this change would exercise a causal influence in checking the growth in real wages that had previously been taking place. Unless, therefore, it was itself in substantial measure an effect of the increased gold output, or of the price movements associated with it, we must conclude that at least a part of the injury to real wages was not due either directly or indirectly to these things.

[1] *The Change in the Distribution of the National Income*, p. 19.

5. Now, common opinion holds that, so far from new gold supplies and an upward price movement consequent upon them checking productivity, they have a strong tendency to expand it. The cheapening of gold, like the cheapening of any other commodity imported from abroad (the demand for which has an elasticity greater than unity), should stimulate British export industries. Moreover, when prices rise, this fact, apart altogether from the cause of it, lessens the real payments that business men have to make on capital borrowed at fixed money interest, and thus improves their position, increases their confidence and stimulates them to increased activity. It must, indeed, be admitted that these considerations do not suffice to prove that new gold and consequent rising prices will actually increase productivity. As Dr. Marshall has shown, there are important considerations on the other side. The enhanced confidence that business men feel in times of rising prices is likely to increase the proportion of the nation's resources that is invested in worthless undertakings. Furthermore, the fact that business men are helped by an artificial reduction in the real interest which they have to pay on their loans means that the pressure upon them to exert themselves to the utmost in order to maintain their position is diminished. And, lastly, the conditions of the struggle for survival being thus softened, weak men, who might otherwise have been forced out of business and compelled to sell their concerns to younger and more strenuous rivals, are enabled to maintain their places somewhat longer. In these ways the average level of energy and capacity in the ranks of the captains of industry is reduced somewhat below the level at which, apart from the upward price movement, it would probably have stood. These considerations make the common view that rising prices brought about by monetary causes are beneficial to production at least doubtful. It is still true that "One wants very much stronger statistical evidence than one yet has to prove that a fall of prices diminishes perceptibly, and in the long run, the total productiveness of industry."[1] Plainly, however, we are not warranted, on the strength of this analysis, in deciding that the advent of new gold and rising prices definitely damage productivity. So far as our present knowledge goes, the main part at all events of the set-back that industry experienced in the period following the late nineties must be set down to causes independent of the gold movement—to such things as the absorption of capital in war and the close of the era of great transport improvements. Hence, so far as the set-back to the

[1] Marshall, *Gold and Silver Commission*, Q. 9816.

rate of real wages results from the set-back to production, it was not due in any important degree to the influence of the new gold or the rise of prices.

6. Professor Bowley has also exhibited a second significant fact. In the fifteen or twenty years following 1880 the proportion of the national income (including income from abroad) that went to "property" fell from about 37½ per cent. to 36 per cent. or 35 per cent. of the whole, but by 1913 it had risen once more to 37½ per cent. This might, of course, mean merely that the aggregate amount of property created through new savings increased more largely in the second period than in the first. Had this been so, however, the real rate of interest in the second period ought to have declined. In fact the real rate of interest, as measured in the yield of consols, appears to have risen slightly and, as measured in the yield of other fixed interest stocks, decidedly. On the whole it appears, though the statistical data are very imperfect, that in the period preceding the middle nineties the rate of return to capital was falling a little relatively to the rate of return to effort, including manual labour, and that, in the following period, this tendency was reversed. Was the damage to the rate of real wages that this reversal implies a result of the new gold and the price movement?

7. Whether or not it was so in part we shall consider more closely in a moment. It seems clear, however, that it was not so altogether. For two factors can be distinguished, obviously independent of gold and prices, that must certainly have contributed something towards it. The first of these factors is the large absorption, in the period from 1896 onwards, of resources in war—the Boer War, the Russo-Japanese War, the Balkan Wars—coupled with the fact that British capital was more and more finding attractive openings abroad. Hence the annual additions made to industrial capital available to co-operate with labour in this country were kept down by influences that were not operating formerly. The second factor is that the supply of industrial labour in this country was expanding in an abnormal manner. Mr. Layton has explained the matter very clearly in the following passage: "The birth-rate reached its maximum about 1871, and the large number of children then born reached manhood during the nineties and are now (1913) in the prime of life. Meanwhile, our improved housing conditions and the progress of medical science have been keeping alive, not only a larger proportion of the infants born, but also a larger number of the older folk, whose expectation of life is steadily lengthening.

The net effect of those changes has been that, though the *total* population increased fastest earlier in the nineteenth century, *the available industrial population has increased most rapidly during the last two decades.* This is shown by statistics of the number of adult males in the population at various censuses. . . . There has been an addition to the adult male population under sixty-five since 1891 of no less than two and a half million persons, an increase of about 37½ per cent., though in the same period the total male population has only increased by twenty-four per cent."[1] These two factors in combination, the check to new capital created and the more rapid increase in the supply of industrial labour, naturally tend to push the real rate of interest up relatively to the real rate of wages; and would, other things being equal, cause the upward movement in the real rate of wages to experience an absolute, as well as a relative, check.

8. We have thus satisfied ourselves that a part, and probably a substantial part, of the set-back experienced by the rate of real wages in the period immediately preceding the Great War was brought about by causes with which neither South African gold nor the upward movement of prices resulting from it had anything to do as causes. There is still room, however, for the query whether *any* part of the set-back was caused by these things; whether, if the South African gold supplies had been just sufficient to keep prices constant, the set-back to the rate of real wages would have been smaller than it actually was. As has already been indicated, the gold and price movement *may* have reacted in some small measure adversely to production and, through production, to the rate of real wages. But there is no ground for holding that, in any event, this reaction can have been other than slight. Consequently, if any substantial part of the set-back to the rate of real wages resulted from monetary causes, these causes must have operated in a more direct manner. In the common view there is no difficulty about this. When prices rise, it is held, economic friction causes the rate of money wages to lag behind. The reason is that workpeople on the one side and employers on the other are accustomed to think of wages as so much money, without paying much attention to the fact that the real meaning of so much money varies as prices vary. The lagging on the part of money wages implies a fall in real wages. In this simple way a part of the set-back, which the rate of real wages experienced in the period we are considering, was directly and necessarily due to the upward movement of prices.

[1] W. T. Layton, *Capital and Labour*, pp. 38-9.

9. This apparently convincing analysis is, however, open to serious objection. The nature of this becomes apparent so soon as the process by which new money acts upon prices is clearly apprehended. We suppose that, apart from monetary causes, there are no influences at work tending to make aggregate production or the rate of real wages fall. When this assumption is not satisfied, the issue is altered in an important way that will be described presently. This assumption being made, however, it is plain that there is only one way in which new gold acts upon prices in a gold standard country such as England was in the period we are considering. The new gold flows into the Bank of England, with the result that the rate of discount falls and business men are encouraged to borrow more money to expand their business. They, therefore, purchase more raw materials. The increase in their demand for raw materials immediately raises the price of raw materials, and therewith, ultimately, the price of a number of other things in the manufacture of which the said raw materials play a part. As a result of this process the price of some of the things that workpeople are accustomed to buy—coal, for example—will go up; and so far the rate of real wages is injured in the way suggested in the preceding section. But the main part of working-class purchases does not consist of commodities like coal, which serve as raw materials of manufacture. It consists rather of staple common articles of food, of which wage-earners consume in the aggregate an enormously greater mass than other classes, and the prices of which are only remotely connected with those prices of raw materials which the direct demand of employers forces upwards. In view of this fact it is difficult to see how the advent of new gold can raise the prices of the principal articles of working-class consumption otherwise than by first raising their aggregate money earnings, and this—if we take a view sufficiently long to eliminate the effects of fluctuations of employment—is equivalent to raising the rate of their money wages. If, however, the advent of new gold only raises the price of the things wage-earners consume by the indirect process of raising their money wages, it obviously cannot be an influence making for a reduction in the rate of real wages.

10. This difficulty is fatal to the opinion that an increase in the gold supply injures the rate of real wages in the simple way set out in § 8. It is not, however, fatal to a more highly elaborated form of that thesis. For let us suppose that, in the first instance, the prices of the things demanded by employers rise, but that the prices of the things consumed by wage-earners do not rise. If

this happens, it becomes to the interest of producers to transfer their resources and activities from producing wage-earners' goods to producing employers' goods. The supply of wage-earners' goods is in this way reduced, and, therefore, after a little while, their price *is* caused to rise—it may be before money wages have risen. That this is what was happening in the period prior to 1914 is suggested by the fact that the price of house-room rose to a much smaller extent than the prices of other things consumed by wage-earners; for, if the immediate cause of the rise in these prices is a contraction of supply, house-room, the supply of which can only be contracted slowly, would be the last thing to be affected. Confirmation of these suggestions is found in the fact that the period after 1896 differs from the period preceding it in that the price of food relatively to the price of materials was decidedly lower than it had been. If the process of events was a rise in the price of materials and, in consequence of this, a continuing diversion of productive power to materials instead of food, the rise in food prices would naturally lag behind the rise in material prices, thus bringing about the result that is actually found to have occurred. We may conclude, therefore, that in this indirect way the influence of new gold during our period, acting in conjunction with the stickiness of money wages, really did tend, in some measure, to depress the rate of real wages. Possibly its effect in this direction may have been a little enhanced by an expectation on the part of dealers, bred of the price rise that had actually taken place, that all prices were going to rise, and a consequent tendency on their part to hold goods from the market, and so to bring about the fulfilment of their own forecasts.[1]

11. In the discussion of the two preceding sections it was assumed that there was no extra-monetary cause at work tending to reduce the rate of real wages. When there is such a cause at work, rising prices, however caused, may strike at the rate of real wages in a more direct and simple way. The non-monetary cause, whatever it is, tending to force down the real rate of wages would have considerable friction to overcome if, in order to accomplish its end, it had to force down the money rate of wages. But, if prices are rising, so that it can do this merely by preventing the money rates from going up *pari passu* with them, it has no friction to overcome. Obviously, therefore, it will operate more

[1] It may be that the evil plight of the wage-earners in Germany now is accentuated by this effect of an expectation of further inflation on the policy of dealers; though German wage-earners must in any event have suffered heavy loss in consequence of the collapse in the productivity of German industry and their own diminished efforts.

swiftly and effectively. If, then, the absorption of capital in war and the expansion in the number of adult wage-earners during our period were causes in themselves adequate, not merely to prevent the rate of real wages from rising, but actually to reduce it, the expansion of the gold supply will have been able, along this route also, to strike a blow at the rate of real wages. On the whole, however, though no exact statistical investigation is possible, the general result of our study suggests that the part played by gold and price movements in causing the set-back to real wages of which we have record in our period was probably small.

A. C. PIGOU

THE AGRICULTURAL INQUIRY

Agricultural Tribunal of Investigation. Interim Report. (Cmd. 1842. 8vo. Pp. ii + 12. Price *6d.*)

"COMMISSIONS" and "Committees of Inquiry," even with a judge as chairman, being a little discredited in these latter days, the late Government in its last hours, thinking the same thing might smell more sweet under another name, decided to set up a "Tribunal of Investigation" to inquire into agricultural methods. The present Government adopted the idea, so that the minute of appointment was signed by Mr. Bonar Law on the 26th of December, 1922.

As if to mark still more completely the abandonment of the effete machinery of the past, the Tribunal is composed entirely of Professors, namely, Sir William Ashley, Professor of Commerce at Birmingham, and Professors Adams and Macgregor, Professors respectively of Political Institutions and Political Economy at Oxford, its academic character being completed by the appointment of Mr. C. S. Orwin, Lecturer in Agricultural Economics at Oxford, as Agricultural Assessor.

The reference to the Tribunal smacks of the politician inexpert in economics and trying, as usual, to combine incompatible ideals. It is "to inquire into the methods which have been adopted in other countries during the last fifty years to increase the prosperity of agriculture and to secure the fullest possible use of the land for the production of food and the employment of labour at a living wage, and to advise as to the methods by which those results can be achieved in this country." What is "agriculture," and when does it "prosper"? Is "agriculture" in this context the cultivation of the fields, and if so, are we to consider it "prospers" (1) when more persons are employed in cultivation, whether their *per capita* product is greater or less, or (2) when the aggregate produce is greater, whether the additional produce is got by a more than proportional or a less than proportional addition to the labour employed, or (3) when the produce *per capita* of persons employed directly and indirectly in agricultural production is greater, whether the aggregate

produce is greater or less? It was doubtless some obscure feeling that the prosperity of agriculture required definition that led the framer of the reference to add the words, "and to secure the fullest possible use of the land for the production of food and the employment of labour at a living wage." These words suggest that his ideal of a prosperous agriculture was one in which the greatest possible aggregate produce is combined with the securing of a living wage to the persons employed, farmers being probably supposed able to look after themselves, and landlords, whether dukes or others, being taken as negligible. But this only makes the darkness visible. There are few things more certain than that getting the greatest possible aggregate amount of produce out of the land will prevent what in twentieth-century England is called a "living wage" being available for agricultural labour, and indeed for any kind of labour. Every farmer and every person who has grown potatoes or peas in his garden for his own consumption knows by experience that it is "not worth while" to expend more than a certain limited amount of labour on the land, not because no additional produce could be got by additional labour, but because the additional produce would not be sufficient to remunerate the additional labour at the existing rate. To make arrangements for the fullest possible use of the land would be an attempt towards the attainment of the ideal, rightly derided by J. S. Mill, of a "human anthill," in which the people are as numerous as possible, and all enjoy a "living wage" only in the literal sense of the barest necessaries of life in return for the longest possible hours of the hardest possible labour.

The three Professors, who have all taught economics at one time or another, must have been long acquainted with this economic commonplace, and the Agricultural Assessor has quite recently insisted on it, declaring that if the people of Great Britain want more agriculture they can have it by paying for it, with an emphasis on the condition which to many agriculturists has seemed at least untimely.

We may suppose that the Tribunal resolved to put a "liberal interpretation" on the politician's phrases, and to take it that he really meant his ideal to be the securing of the greatest aggregate produce compatible with the payment of a living wage to the persons employed, and that by a living wage he did not mean anything less than such a wage as country labour would be likely to accept having regard to the remuneration obtainable in other employments. The general idea at the back of his mind evidently

was that the Tribunal should study foreign experience and find out from it how the efficiency of British agriculture might be improved—and a very good idea too. It may be, and probably is, true that British agriculture is already so efficient that a day's labour of a given length and intensity in it at present yields more or better product than the same amount in most parts of Europe, but no one supposes that it has nothing to learn even from systems which, on the whole, are inferior. Moreover, "other countries" include not only European countries, but those other countries, British and foreign, across the oceans where the power of the agricultural worker to produce is far greater than in Europe.

If any difficulty is felt about the acceptance of this interpretation of the reference, there can, at any rate, be no doubt that it intended the principal work of the Tribunal to be an investigation of agricultural policy in other countries. It was never framed in the anticipation that the Tribunal might forthwith recommend a policy centuries old for stale old reasons which have been familiar to everyone for a century or more. Professors, however, read the newspapers, and the newspapers have discovered from the eastern counties strike and other indications that British agriculture is in a "plight," and that the business of the Tribunal is to pull it out. The Tribunal has responded to the call with a nimbleness which might be envied by mere politicians, and brought out an interim report in which the experience of foreign countries appears as little more than padding, while the staple is recommendation of protective measures based in no way whatever upon that experience.

The report begins with "the very serious crisis with which the agricultural industry in this country is faced," and a description of "the gravity of the immediate state of British agriculture" which is intended to be blood-curdling, but, it must be confessed, reads a little tame to anyone familiar with contemporary descriptions of the same thing after the Napoleonic War. In causing "the depression in agriculture," "drought in 1921 and the heavy fall of prices in 1922 have been main factors." But the Tribunal has no proposals for stabilising the weather by methods successfully practised in other countries, and does not say that any other country has succeeded in stabilising the profits of agriculture in favourable and unfavourable seasons. Nor does it consider the cause of the recent fall of prices, and whether it is likely to recur; nor how other industries have met the fall in the price of their products. The immediate crisis is

brought up merely to excuse the hurried presentation of a report recommending a few of the usual expedients for fighting one of the most enduring and most satisfactory tendencies of human progress—the tendency for an ever-diminishing proportion of human labour to be required for satisfying the human stomach, which, as Adam Smith observed, is of limited capacity.

Agricultural co-operation and education, which the Tribunal proceeds to praise, are, of course, good things which accelerate this tendency to a diminution of the proportion of persons employed in agriculture in the world at large, but if they are more largely adopted in one country than in others, they may have the effect of concentrating more of the world's agriculture in that country, and so of tending to increase agricultural employment in that country. Whether they actually have that effect in any particular case depends on the particular circumstances. That they would have it in this country the Tribunal assumes by putting them immediately after a paragraph (§ 9) of which the burden is a complaint that "in every other country agriculture plays a larger part in national life." It may quite easily be true, but it surely requires some kind of proof. The countries which occur to the ordinary mind as those in which agriculture plays a very large part in national life are China, India and Russia, none of them specially remarkable for agricultural co-operation and education.

But it is only after this that we come to the real business of "Recommendations." The first suggests some extension of the proposals of the Committee on Credit Facilities, and the next asks for a 25 per cent. reduction of railway rates, at the expense of the taxpayer if it cannot be forced on the companies. Professor Macgregor dissents so far as the taxpayer is concerned. The third recommendation is for renovating and immensely enlarging the Agricultural Rates Act grant by making it equal to half the produce of the existing rates instead of half the amount levied in 1896. The stock objection that this grant gives most relief where least is needed is not noticed, but Professor Macgregor thinks the recommendation at least precipitate.

After subsidies, Protection, at first in somewhat ludicrous disguise. Farmers would like to have more wheat offals if they were cheaper, and it has been suggested that there would be more and cheaper offals if the importation of flour were stopped, because then, it is argued, wheat would be imported instead of flour, and be milled here, giving out its offals to the British farmer instead of leaving them behind to be sold in the country

of origin. "It is probable," says the Tribunal, "that such action would not raise the price of flour in this country, for the existing milling capacity of this country is capable of an output equal to our total consumption of flour." Apart altogether from the possibility that the few great mills in this country, when relieved of foreign competition, might combine to fleece the consumer, this is a very remarkable argument, which shows the value of a correct understanding of the doctrine of the value of joint products. At present, say, of every five bags of flour which we use made out of wheat grown outside the country, four have been milled here from imported wheat, while the other has been milled abroad, leaving the offals behind. Why this proportion? Because, having regard to the prices of both flour and offals and the cost of milling in the various countries of origin and here, this is the proportion which just pays. If more wheat and less flour were sent, it is very likely that the relative cost of milling would be inappreciably affected, but the change would quite obviously tend to reduce the price of offals here (as the Tribunal itself expects) and raise it in the countries of origin. How anyone could fail to see that this would tend to reduce the quantity of wheat sent to this country, and consequently to raise the price of all wheat here, is difficult to imagine. And the position of the Tribunal is not improved by its claim to have found an even better way of cheapening offals without raising the price of flour to the consumer. After the words quoted above it goes on: "We recommend, however, that the import be left open, but that importers of wheat flour should be required to send a corresponding proportion of wheat offals." With every three hundredweights of flour, the importer must bring in (whether in the same ship or otherwise is not stated) one hundredweight of offals! Really, if Tribunals of Professors are going to make jokes of this quality, near akin to the "jokers" of American protective legislation, the sooner we have the old-fashioned Commissions again the better. Anyone who has ever handled grain and flour knows that if he has the choice of carrying a quantity of grain unmilled or the same quantity after conversion into flour and offals, he will elect to carry the grain unmilled, and consequently the proposal of the Tribunal is fully equivalent to the prohibition of import which it professes to avoid.

Having made this approach the Tribunal now gets to Protection naked and unashamed. It proposes a duty of 10*s.* a quarter on malting barley if imported from foreign countries

and 6*s*. 8*d*. if from Dominions, and a duty of 20*s*. per cwt. on foreign and 13*s*. 4*d*. on Dominion hops. Modelling itself on the well-known and in every respect utterly discredited principle of the old English corn-laws, it actually recommends that the importation of potatoes should be prohibited except when licensed by the Board of Trade "after consultation with the Minister of Agriculture as to the extent of home supplies," which means, of course, that the ports are to be shut ordinarily but to be opened when the crop at home is unusually short.

Professor Macgregor dissents from the recommendation about the imports of flour and offals, and from that about malting barley and hops, but accepts the potato proposal.

The protection of the infant industry of beetroot sugar is to continue "sufficiently long to enable the experiment to be thoroughly tested"; and all imported agricultural produce is to be marked with the name of the country of origin so far as practicable.

The only other important recommendation is that six district agricultural wages boards should be set up in England and Wales to fix minima wages and give permits only. The argument in favour of this is not well knit, and is probably the result of combining the different contributions of several hands. The idea that something of the kind must be offered to buy off opposition to the "forms of assistance" proposed is not definitely put forward, but seems to underlie the suggestion of §§ 35 and 36, that farmers will not work Trade Boards well unless they "can entertain a certain feeling of security with regard to their business prospects."

"Low wages," says the Tribunal, "are too often coincident with bad farming." It would probably say the same of low rents. But if the farmer, like other producers, is driven to more efficient production by greater outgoings, why is he, unlike them, never driven to more efficient production by smaller incomings resulting from lower prices? The Tribunal may fairly be asked to answer this question in its next report, or in the alternative to say definitely that it does not consider itself appointed to improve the productivity of agricultural industry, but to give us as much agriculture as we are prepared to pay for.

EDWIN CANNAN

ECONOMIC PSYCHOLOGY

Economic Motives. By ZENAS CLARK DICKINSON, Ph.D., Assistant Professor of Economics in the University of Minnesota. Harvard Economic Studies, Vol. XXIV. (Harvard University Press. 1922. Pp. vii + 304. Price 12*s.* 6*d.* net.)

My Life and Work. By HENRY FORD, in collaboration with SAMUEL CROWTHER. (London: William Heinemann. 1922. Pp. 289.)

THE question to which Mr. Dickinson addresses himself is one of great interest and moment. The main outlines of modern economic theory were framed by men who held, and to a large extent created, the body of psychological doctrine known as Utilitarianism or Hedonism. Since their day the science of psychology has made great strides. New methods of study have become available and new conceptions of the relations of mind and body have come to the fore; and while the psychologists are at least as far as the economists from being at peace among themselves, there is something like general agreement that the grand simplicity of the hedonist hypothesis is inadequate and misleading. Does it not follow that economists, in manipulating the old apparatus of desire and utility, are fumbling with an outworn model, and building their elaborate constructions on a foundation of sand?

It is a relief to find that Mr. Dickinson is able to answer this question in the negative. I had better confess at once that I am not competent to appraise the process by which he reaches this reassuring conclusion. So far as I can tell, his critical survey of the notions and methods of the newer psychologies is thorough and sensible; but for all I know it may be incomplete and even wrong-headed. Certainly I find it an effort to believe that when I think I am thinking about my investments or the quantity theory of money I am really only a kind of battle-ground for innumerable minute physiological processes, occurring largely in the tongue and the larynx, which are, as it were, nipped in the bud before they have a chance of altering my observable behaviour. But I have believed harder things than that at the bidding of

men of science; and if the great Victorians Reason and Intellect have really fallen on such ill days, it is all the more comforting to know that those tiny twitchings in the mouth come in the end to so nearly the same thing as that which I used to dignify by the name of thought.

Mr. Dickinson's vindication of the validity of economic science seems to rest on two main propositions. In the first place he reminds us that the first business of the economist is to observe how people act,—to emulate the modern psychologist in collecting and grouping and analysing the " behaviour-data " relevant to those branches of conduct in which he is interested. If men, in fact, buy more of a thing if the price falls, it is not of primary import to the economist whether they do so because they desire gain, or because they are the victims of " slight innervations, initiated at some remove by peripheral stimulation." Even if the workings of the human mind (or larynx) are destined to remain for ever shrouded in mystery, there will still be plenty of useful work for the economist to perform.

It is interesting to a Cambridge economist to find Mr. Dickinson developing this point of view, for it is the note struck so forcibly by Mr. Henderson at the outset of his recent study of *Supply and Demand.* But Mr. Dickinson seems more clearly conscious than Mr. Henderson that the economist bereft of a psychology, while he may be able to support life, can scarcely be expected to enjoy it. After all, most of us, I imagine, agree with Professor Pigou, that economic science would be a dreary affair if it promised us light only and not also a hope of fruit; and if that is so, we are entitled and indeed compelled to take an interest in the nature of the fruit, and to inquire what that thing is which it should be the aim of statesmen and reformers to maximise. It may be worth reading and writing dull books in order to promote the happiness of the human race, but scarcely in order to promote the maximum turbulence of laryngeal neurones. Even Mr. Henderson cannot get far in his discussion of " what is," still less of " what ought to be," without reintroducing that familiar hierarchy of desires and enjoyments which he has started by cutting in the street; and Mr. Dickinson's whole book is inspired by the conviction that psychology does matter to the economist.

For this reason more weight seems to me to rest on the second main plank in Mr. Dickinson's argument. Very briefly, he concludes that the gap between the old hedonist doctrines and those of modern Behaviourism is much narrower than is often

supposed, and that for the practical purposes of the economist the former remain substantially valid. In the useful survey of pre-Utilitarian and Utilitarian psychology which makes up the first section of his book, Mr. Dickinson lays special stress on its "associationist" aspects. The most hardened "intellectualists" did not, he reminds us, suppose that the ordinary man always calculates out the consequences of his actions in terms of pleasure-pain: they realised that men act frequently from habit, based on the previous experience of themselves or other people. They were aware, too, of the phenomenon of "transfer,"—that courses of action originally followed as a means to an end come to be followed as an end in themselves. In his second part—in his study of those "response-mechanisms" which in modern sensationalism do duty for what we used to call desire—Mr. Dickinson lays stress on the phenomenon of the "conditioned reflex"—a term whose meaning can perhaps be best conveyed to the uninitiated by the example of the dog whose mouth, having grown accustomed to water at the sight of food exhibited in a red light, waters ultimately at the sight of the red light in the absence of food. In the similarity of the old "association of ideas" to the new "conditioned reflex" Mr. Dickinson finds one of his main bridges between the old modes of thought and the new. It may be more true to say that we desire what we seek than to say that we seek what we desire; but so long as there is still pleasure, a concomitant if not a cause of physiological movement, the economist need not feel at a loss; and so long as response-mechanisms can be trained to answer new stimuli the reformer need not despair.

The third and most economic section of Mr. Dickinson's book will be to economists the least interesting because the least unfamiliar. Students of Marshall will not learn much that is new about wants, or consumers' surplus, or the marginal saver. But it is interesting to note that on the vexed question of the existence of "real costs" Mr. Dickinson takes a middle position, holding that in every instance of "costly" production there is probably a mixture of positive "pain-cost" and of "opportunity-cost," defined as the foregoing of one pleasure in order to accept another. He sees more hope of progress in a modification of inheritance-laws than in a direct attack upon interest-taking; and he ends on a note of cautious optimism with a discussion of the possibilities of reinforcing the financial with the non-financial motives for work.

It is instructive to turn from theory to practice—from *Economic*

Motives to Mr. Henry Ford's *My Life and Work*. In the pages of this lively, tumultuous, provoking and fascinating book the economic psychologist will find a record of behaviour-data more baffling and absorbing than those presented by any bemused guinea-pig or deluded dog.

It is tempting to linger over the more picturesque passages of this work,—over the momentous meeting of Henry Ford, aged twelve, with a traction engine; over the vision of the first Ford car tethered to a lamp-post to prevent the inquisitive passer-by from testing its response-mechanisms (as Mr. Dickinson would say); over the professional bicyclist who would "try anything once" and drove the 999 to victory; over the one political mobilisation of the Ford interests,—in favour of a bill for the provision of sanctuaries for migratory birds. But we must hurry on to the behaviour-data more strictly relevant to the title of this JOURNAL.

Here, expressed so far as possible in his own terse and salty phrases, are some of the principles which, according to Mr. Ford, have led to his phenomenal business success.

(1) Don't fiddle about with your product. Take time and thought before putting it on the market, but once it is there don't try to "improve" it,—devote your energies instead to improving the process of production. "I spent twelve years before I had a Model T—which is what is known to-day as the Ford car—that suited me. We did not attempt to go into real production until we had a real product. That product has not been essentially changed." "It is extraordinary how firmly rooted is the notion that business—continuous selling—depends not on satisfying the customer once and for all, but on first getting his money for one article and then persuading him that he ought to buy a new and different one." "One idea at a time is about as much as anyone can handle."

(2) When in doubt cut prices. "We first reduce the price to a point where we believe more sales will result. Then we go ahead and try to make the price. We do not bother about the costs. The new price forces the costs down."

(3) Dispense with experts, systematic records and so-called organisation. "If ever I wanted to kill opposition by unfair means I would endow the opposition with experts." "If you keep on recording all of your failures you will shortly have a list showing that there is nothing left for you to try." "A business is a collection of people who are brought together to do work and not to write letters to one another." "There had been an

executive office [of the Detroit, Toledo and Irontown Railway] in Detroit. We closed that up, and put the administration into the charge of one man, and gave him half of the flat-topped desk out in the freight office." "The promotion itself is not formal; the man simply finds himself doing something other than what he was doing, and getting more money."

(4) "Keep clear of outside finance. A properly run business ought to be able to finance its extensions out of its own profits. Dividend-hunting poisons business and defeats its own ends." "The most surprising feature of business as it was conducted was the large attention given to finance and the small attention to service." "I have never been able to understand on what theory the original investment of money can be charged against a business." "I regard a bank principally as a place in which it is safe and convenient to keep money." "Borrowing under certain circumstances is just like a drunkard taking another drink to cure the effect of the last one." "I regard business profits above a small percentage as belonging more to the business than to the shareholders. The shareholders to my way of thinking ought to be only those who are active in the business and who will regard the company as an instrument of service rather than as a machine for making money."

Of almost equal interest is Mr. Ford's account of his attitude towards Labour. He is not hostile to Trade Unionism, but he will have no dealings with it. The Ford men, as everybody knows, are well paid; what is more surprising is that they are paid time-wages. The discipline is admittedly strict: but I feel we need other evidence than Mr. Ford's as to what degree of "driving" is necessary to maintain the prodigious pace of production without recourse to the lure of piece-wages. I gather that the rather naïve "profit-sharing" scheme of 1914, which consisted in bringing wages up to a flat rate of five or six dollars by making the bonus vary inversely with the basic wage-rate, has been abandoned, together with the inquisition into home life which accompanied it. There is now no paternalism; it does not seem that Mr. Ford's lieutenants waste much time in what Mr. Dickinson calls "analysing out some of the 'human nature' quirks of the people they have to deal with." "It is not necessary for people to love each other in order to work together." "There is not much personal contact—the men do their work and go home—a factory is not a drawing-room. But we try to have justice, and while there may be little hand-shaking —we have no professional hand-shakers—also we try to prevent

opportunity for petty personalities." Much thought is given to arrangements for safety and sanitation; it is characteristic that "the dark corners which invite expectoration are painted white." Mr. Ford holds that an industrial institution ought to be able to find work, at full wages and not as a matter of charity, for its full quota of the unfit members of the community, and at the last census he had 9563 sub-normal men in employment, including 3 totally blind, 37 deaf and dumb, 60 epileptics and about 1000 victims of tuberculosis. (A colleague of mine suggests that in this particular field of social experiment Mr. Ford has been anticipated by the Universities.)

Mr. Ford is not afraid of the alleged injurious social effects of the methods of mass production: most men, he thinks, are neither desirous nor capable of anything but routine work. "I have not been able to discover that repetitive labour injures a man in any way." "The average worker wants a job in which he does not have to think." "The vast majority of men want to stay put. . . . The difficulty is not to discover men to advance, but men who are willing to be advanced." "The kind of man that does not like repetition work need not stay in it." Once more I feel I should like a second opinion. I am sure Mr. Ford has done his best to explain, but by what magic does the system of cheery chaos by which every man always finds himself in the right place really work? How came it that in 1919, 3702 operatives were discharged "because they refused the job assigned or, without giving cause, demanded a transfer"? And why should Mr. Ford himself feel constrained in a later chapter to admit that "there is another field that beckons us—the abolition of monotony"?

What is Mr. Ford's secret, and what, if anything, does his immense personal triumph portend for the future of industry? I do not think that he can be said to have treated the labour question on lines which will prove generally and permanently acceptable. Nor do I think his solution of the problem of the relation of industry and finance is of universal validity. His ideal of the self-financing business is an attractive and refreshing one in an age and a country in which the financial manipulation of industry has become far too common, and in which the phenomenon of the idle and greedy shareholder has become one of the supreme social irritants. Yet I do not believe that society is ready as yet to scrap at Mr. Ford's bidding the whole ingenious mechanism by which the resources of the indolent, the unambitious and the otherwise engaged are concentrated into the hands of the economic-

ally energetic. This part, like most of the rest, of Mr. Ford's industrial philosophy is dominated by one assumption—that the demand for your product is continuously and overwhelmingly elastic. He suggests, partly out of a characteristic modesty, that what he has done for the motor-car can be done by somebody else for anything you please; but it is significant that at the age of eighteen he resisted the temptation to become a watch-maker because he "figured out that watches were not universal necessities, and therefore people in general would not buy them." Perhaps he had something of the luck which genius deserves in finding the motor-car in a stage of development when he could "take what was a luxury and turn it into a necessity."

For the rest, we are reduced to the old answer—the force of personality. Take an unusual compound of the inventor and the organiser, endow it with wit and simplicity and determination and immense capacity for work, and you have Henry Ford. Be grateful to him for his cars and his tractors and his literary style; but do not deceive yourself into thinking that you know much about his response-mechanisms, or can build water-tight industrial theories on observation of his behaviour-data.

D. H. ROBERTSON

RECENT RESEARCHES IN INDUSTRIAL FATIGUE

In July 1918 a Research Board was appointed by the Medical Research Council to carry on the investigations initiated by the Health of Munition Workers Committee. Undeterred by "cuts," and threats of further cuts from the Geddes axe, the Industrial Fatigue Research Board have since then continued to issue what a contemporary daily has been pleased to call "these jolly reports with pink covers" which "get better and better every month." Twenty reports now[1] stand to their credit.

According to the official terms of reference, "research is undertaken" by the Board "to promote better knowledge of the relations of hours of labour and of other conditions of employment, including methods of work, to functions of the human body, having regard both to the preservation of health among the workers and to industrial efficiency." And it is clear from the twenty-two reports published to date that "Industrial Fatigue" is not interpreted in any narrow sense.

Some of the reports do not indeed attempt to enter into "the relation of conditions of employment to functions of the human body"; they are content merely to describe the conditions accurately, be it in the boot and shoe industry (No. 11), in potters' shops (No. 18), or in bobbin-winding (No. 8). But where relationships actually are traced, the effect on output of varying hours and varying air conditions is the burden of the largest homogeneous group of reports. Daily and hourly output curves at various times of the year are given in shell-making (Report No. 2), in silk-weaving (Report No. 9), in fine-linen weaving (Report No. 20), and in boot and shoe factories (Report No. 10); yet the most important reports in this group both in quantity and quality are those by Dr. H. M. Vernon that deal with the tinplate industry (Report No. 1), with the iron and steel industry (Report No. 5), and with the time required for the rate of output to adapt itself to altered hours of work in metal industries generally (Report No. 6).

In these reports of Dr. Vernon the happy tendency of daily output to increase in the long run with shortened hours of work

[1] January 1923

is shown to have limits. The 10 per cent. rise in *hourly* output of tinplate mill men when changing from an eight to a six-hour day will clearly not permit a greater production per shift. Nor can much comfort be derived from the fact that three eight-hour shifts produced in blast furnaces no more output, and in open hearths only from 2 to 9 per cent. more output, than two twelve-hour shifts. On the other hand, Dr. Vernon can point to enormous improvements in efficiency obtained by changes in the material equipment. It is clear that output is, in these occupations, largely determined mechanically, and Dr. Vernon is right, therefore, in turning to records of lost time, sickness and mortality as tests of efficiency to supplement the test of output.

Scientific Management and Science

A second large group of reports (Nos. 3, 12, 14, 15 and 16) dealing with Motion Study and Vocational Selection invade the territory of Scientific Management and subject the claims of American enthusiasts to a thorough overhauling.

When Taylor writes in his *Principles of Scientific Management* of bicycle-ball inspectors being selected according to their "personal coefficient" as discovered in the "physiological departments of our universities," it is shown that he was only speaking metaphorically or possibly, and as his followers would have it, with poetic licence. No physiological test was given. All that actually happened was that the girls were timed during their inspection by the familiar stop-watch methods, and the slowest and least industrious were dismissed. Moreover, there is no evidence whatever that the "one element which did more than all of the others" in the subsequent improvement in output was in fact this "scientific selection of workers" as Dr. Taylor claims. New factors, such as rest pauses, motion study and more stimulating methods of payment, were all introduced at the same moment. It is certainly time that scientific management should be challenged in the name of scientific method. Not one of its devotees seems to have thought of the isolation of factors, any more than many of them understand the uses of averages, probable error, or statistical methods generally.

In contrast to the "strong-arm" (or is it the "glad-eye"?) method of hiring and firing employees, the Fatigue Research Board sets up a scientific procedure by means of physiological and psychological tests of fitness. In Report No. 16, Mr. Muscio shows how those likely to make efficient compositors can be "spotted" in three-quarters of an hour. The tests he suggests

for the purpose classify compositors as to efficiency almost exactly as did their supervisors. The correlation of the ranking by four tests combined and the ranking by the supervisor was + 68 in one works and + 74 in another. Selective tests are also discussed by Mr. Muscio for occupations in industries such as transport, mining, building and engineering, where physical strength is still a requisite.

Once an employee is selected for any job, the next step in the scientific management programme is to think out and teach the right motions. The Industrial Fatigue Research Board are not behindhand, and improve on the usual text-book of scientific management in telling us exactly what were the improvements in methods of work which led to increased efficiency. Two reports (Nos. 14 and 15) on Motion Study for which Mr. Eric Farmer is responsible are admirable examples of what scientific management ought to have told us, but did not. Even in simple operations, such as polishing spoons, dipping sweets, and covering chocolates by hand, improvements in the method of performance are shown to decrease the time required anywhere from 8 to 88 per cent.

But Mr. Farmer is not for output at any price. In addition to their publicity, his methods are distinguished from such as Gilbreth's " one best method " in their adaptation to the worker's individual idiosyncrasies and in their care for the worker's ease, health, rhythm and ultimate efficiency.

No doubt the usual scientific management expert, even if his methods do conduce to health and ultimate efficiency, is, as a professional man, unable to publish the secrets by which he lives, and is in any case not particularly interested in scientific research as such. If this is so, there is all the greater reason for continuing the work of the Industrial Fatigue Research Board.

There remain to be considered in greater detail reports dealing with Labour Turnover (No. 13), with Individual Differences in Output (Nos. 7 and 17), and with Industrial Accidents (Nos. 4 and 19).

Labour Turnover

The Board may be congratulated on giving such a thorough consideration to a subject not dreamt of as yet in the philosophy of English employers. Labour Turnover, alias Labour Wastage, alias Labour Recruitment, is the number of employees leaving an organisation in any given period compared with the total numbers in the organisation. A refinement I have always advocated is to omit those who left because there was no work

for them, and to count, in fact, only those who had to be replaced.[1] For it is in the training of new employees to take the place of the old that the main expense is incurred. The U.S. Department of Labour has recently come round to this view. The Fatigue Research Board, however, still include in the numerator of the turnover rate all employees who leave, but they introduce novelties in forming the denominator.

It is found almost universally true that an employee's liability to turnover is much greater in the first months of his employment in any particular organisation than later on, just as the liability of a human being to die is greater in infancy. In view of this tendency to "infant mortality" in industry, it is unfair and unscientific to compare the rates at two factories, or during two periods in the same factory, if the proportion of those recently hired is different at the two factories or at the two periods. Accordingly the Board advocate and use a standard length-of-employment distribution; they calculate the turnover rate separately for each group with approximately the same length of employment.

The material collected by the Board's investigators was drawn from many separate factories, most of which were newly organised during the war; but even so the path of the reader through the mass of tables might have been made easier. The "key" table is No. XXXVII., and here numerous errors can be detected due either to faulty copying from other tables or failure to reduce rates to the common basis indicated in the headings.

The statistical procedure adopted at the suggestion of Major Greenwood is in itself so complicated—perhaps fatally complicated for the busy business man—that simplicity and accuracy in presenting the results were essential. On the whole we are not convinced that a simple division of the numbers replaced per year by the total numbers employed at any representative moment within the year is not, after all, the procedure to be recommended. Comparisons would thereby be permitted with the accumulating mass of American experience, and further investigation in England would not be unduly discouraged. In these days of post-war *laisser faire*, one cannot hope that Government agencies will collect figures of turnover on any considerable scale. The matter must be left to the private enterprise of the business man, and however alert or enlightened he may be, it is doubtful whether he will want to do more than find out from

[1] *Use of Factory Statistics in the Investigation of Industrial Fatigue*, pp. 92–95. Columbia Studies. P. & S. King, 1918.

time to time the cost of his actual turnover when compared with his total wages bill. The suggestion of refinements in technique requiring an expensive addition to his office staff will probably "leave him cold."

Individual Variability in Output

Report No. 4 gives evidence for supposing certain individuals inherently more susceptible to accidents than others. This conclusion has been sufficiently remarked upon, and an equal measure of attention should have been paid to the conclusions contained in Reports 7 and 17 as to the distribution among individuals of inherent productivity.

The mere range of variation of such a distribution forms an important measure of the net effect of the much-discussed human factor in industry, and there is no doubt that a "squad" of workers engaged individually on exactly similar work and under the same physical conditions will usually show wide differences in output.

In an American metal factory I was able to observe in detail the work of fourteen women painting a solder mixture by hand on the backs of buttons. No machinery was employed in this operation, and there was a total range of variation in each individual's average output as between 78·1 per cent. and 117·8 per cent. of the average output for the group. The mean variation was 8·8 per cent.

A variation no less wide is found by the Fatigue Research Board in weaving with automatic looms. Wyatt (Report No. 7) finds a total range of variation from 73 to 126 per cent. of average weekly output among 752 plain weavers; of 75 to 119 per cent. among 46 winders, and of 65 to 132 per cent. among 423 fancy weavers. The mean variation in these three operations was 6·0, 8·3, and 10 per cent., respectively, of the average output. In silk weaving (Report No. 17) Elton finds mean variations ranging from 8·2 per cent. of average output to 16·8 per cent. among nineteen groups weaving varieties of plain cloths on automatic looms.

Other operations in the textile industry, such as ring and mule spinning, show according to Report No. 7 only the slightest variations, *e. g.* a mean variation of 2·0 and 1·9 per cent. It is evident that the machine is here setting the pace and that, as in the iron and steel operations observed by Vernon, output forms but an inadequate measure of the functioning of the human body.

In the observations carried out in America I found the additional characteristic of output obtained from machines that the distribution was negatively skewed. The probability is that the speed of the machine prohibited a greater output per hour than a certain amount, but set no limit at the lower end of the scale. A similar negative skew is also observable wherever there is a tendency to the deliberate restriction of output, and the same interpretation is possible, though here it is the human will, not the machine, that places limits at the fast end of the scale.[1]

Report No. 17 carries the matter yet further. It is shown that the "efficiencies" with which silk-weavers finish similar warps distribute themselves approximately in a curve of "normal error." Studying the individual outputs in the button-painting operation mentioned above, I arrived some years ago at the same result. Not merely did the hourly and daily outputs of the whole squad form a curve approximating that of normal error, but the same was true for the daily outputs of each individual worker. These conclusions seem to me of some importance, both to the theoretical economist and the factory manager.

In discussing the determination of wages, economists usually find it convenient to refer to a worker of representative or "normal" efficiency who is as liable as any other worker of the same efficiency to become the marginal employee. It may therefore be of comfort unto many to know that there are real grounds for assuming the existence of such a norm. A bimodal or highly skewed distribution of efficiencies would prohibit the use of such terms. The various measures of average, mode, mean or median, would diverge widely and no one measure could be taken as representative. If, however, as between the efficiency of different men on different days, the normal curve of error is the rule, and there is a distinct mode of efficiency to which the mean and median efficiency approximates, the marginalist may go on his way rejoicing.

To the employer the expectation of a normal distribution of daily outputs among individuals hired at random may serve as a basis from which to assess the value of any wage-systems or psychological selection he may introduce, or to detect restriction of output. He may be guided by the following rules:

1. If the daily output distribution of a squad of workers in any operation has a narrow dispersion, is not symmetrical or

[1] For methods of measuring the loss in productivity through this negative skew see the *American Statistical Association Quarterly*, September 1920.

normally distributed, but is greatly skewed negatively, and the operation is not mechanically limited, the deliberate human restriction of output is indicated.

Indeed, a strict uniformity in output among different individuals at different times without apparent mechanical causation should actually make an employer anxious. Any figure of output appearing over and over again, as was found in certain English and American munition factories, is almost a sure sign that this output is the " stint" or " doggie " tacitly or openly agreed upon by the workers.

2. If the daily output distribution in any operation has a relatively narrow dispersion and is skewed positively, after the introduction of selection of employees by test or examination, this would indicate the elimination of the less productive workers from a random group, and is a sign of a successful system of selection.

3. If the daily output distribution in any operation has a relatively wide dispersion after an " efficiency " system of wage payment is introduced, this would indicate success in increasing incentive and stimulating the departure of individuals from a common dead level.

Accidents, Fatigue and Speed of Production

Report No. 19 deals with a subject somewhat controversial in the select circle acquainted with the facts. As the Board themselves remark, " amongst the factors normally operating in accident causation, an important part is played by speed of production, fatigue and the psychic state of the injured person, and the more recent investigations have been largely concerned with studying the relative importance of these three factors."

The matter is one of great practical importance. If fatigue is the true interpretation, the remedy lies in shorter hours, more frequent breaks, provision of seats, rest rooms, etc., etc. If a psychic state of too much excitement and exhilaration is at the bottom of it, then the possible remedies, to quote suggestions of the Health of Munition Workers Committee, are to stop conversation, to plug the ears of the worker, and to partition off each machine. If speed of production is the main factor, then little can be done, and the increase in accidents must be counted as the inevitable price of increased efficiency.

Now the view taken in Report No. 19 is that fatigue is of less importance, and the " psychic state " and the speed of production

of more importance, than was concluded in investigations such as that contained in the U.S. Public Health Bulletin No. 106.[1]

In this American investigation hourly curves of accidents and of production were collected simultaneously at the same plants, and hourly index-numbers were derived from them to measure changes in accident rates relatively to changes in production. These index-numbers, however, still showed increases of the order of 50 per cent. in the accident rates of the later working hours of spell and day as compared with that of the first hour of day.

In Report No. 19 the presumption of fatigue arising from this increase in accident rates is countered by pointing to curves of accidents that fall during the hours of the night-shift, and by questioning the credentials of the American index-numbers, and their sufficiency.

The criticism of the index-numbers seems to us rather a storm in a teacup, and a cracked teacup at that. It runs to the effect that the hourly output curve used as a basis for the accident rates was obtained on experienced hands only, whereas the accidents included those occurring to all hands.[2] But what evidence there is indicates the small importance of experience in this connection, and furthermore, a point we may consider first, the allegation of differences in experience among the accident cases and the producers is only partially sound.

The output curve in question was partly obtained from the hourly power consumption curve of the machinery used by both new and old hands. In fact the day-shift curve of accidents per unit of output quoted in Report No. 19 (Table VI.), which, in the words of the report itself, "shows the familiar rise during the spell," is based entirely on the power consumption records, and therefore on the output of both experienced and inexperienced machine hands.

No objective evidence is vouchsafed us in Report 19 that either the hourly accident curve or the hourly output curve of novices differs very materially from that of experienced workers. The accidents of press hands on their first day of employment has, however, been investigated by the U.S. Department of Labour. Comparing this novices' hourly accident curve with that

[1] "Comparison of an Eight-Hour Plant and a Ten-Hour Plant." Report by Josephine Goldmark and Mary D. Hopkins on an investigation by Philip Sargant Florence and associates, Washington 1920. Reviewed in the ECONOMIC JOURNAL for June 1920.

[2] This criticism appears in greater detail in the *Lancet* of August 21, 1920, and is said in Report No. 19 to have been pointed out by Prof. E. L. Collis.

of metal workers of more than a year's experience, a close similarity was found. In the words of the Bulletin, " the same form of curve, in its essential particulars, occurs for the experienced as for the inexperienced."[1] To be precise, the novices show a slightly lower proportion of accidents in the afternoon compared with the morning spell, and the peak of accidents which is no higher relatively to the first hour's accidents tends to come one hour earlier in each spell, so that, if anything, the inclusion of inexperienced hands would seem to tell against the tendency for an increase in accidents in the later hours. The general level of the accident rate is higher, of course, for novices, but the hourly curve of variations does not seem any more pronounced in their case.

But even if a homogeneous body of material could be collected, Dr. Vernon in Report No. 19 denies that merely to divide accidents by output goes far enough, and he claims that a given increase in output per hour might increase the accidents more than proportionately. At least three reasons can be thought of why this might be so. (1) The physical danger is greater in those steps of the operation where handling is involved, and since actual machining steps cannot be speeded up, the handling must be more than, say, doubled in speed to obtain double production. (2) With greater speed there is less chance of accuracy in movement. (3) Fatigue sets in from the greater intensity of work.

Thus unless this third possibility is specifically excluded the speed of production theory by no means exorcises the theory of fatigue.

The potency of the first hypothesis can be fairly exactly tested by observing the proportion of handling time to mechanical time in performing the operation, but it was shown in Bulletin 106 that even supposing so unusual a proportion as 1 to 4, the divergencies of accident and output curves could not be thus explained.

In formulating the further hypothesis of the possible influence of greater speed on inaccuracy of movement, the meaning of " speed of production " must be analysed very carefully. If it is simply the hourly output curve or the curve of excess power consumption which is used to compare with the accident curve, it must be realised that this is affected not merely by the speed of work while working, but by the pauses, small or great, when no output is made and no excess power used, and that these pauses are of very frequent occurrence in the type of work here dealt with.

[1] *U.S. Bureau of Labour Statistics*, Bulletin 234, pp. 162, 163.

Actually the output or power curve may be shaped more by these pauses than by the speed of production properly speaking. Certainly until this point is elucidated it seems premature to base the extreme variations in the day-shift accident curve entirely on the speed of production which may remain, for all that is known, almost constant from hour to hour.

Accidents and the Psychic Factor

In the course of the night-shift Dr. Vernon finds that accidents fall while output on the whole rises. The theory of complete parallelism between output and accident curve no longer holds, any more than a theory of fatigue, and Dr. Vernon then springs on us his *deus ex machina*, the " psychic state " of the worker. It is assumed that night workers started work " in a careless and excited state and gradually settled down to a calmer mental state than the day workers." This is quite a pretty conceit which I must admit having used myself, though, to be sure, it was to explain not a rise in accidents but a fall! In the 1915 report of the British Association Committee on " Fatigue from the Economic Standpoint " it will be found that " anticipatory excitement " on the part of the workers is used to explain the curious fall of the accident curve in the last hour of each spell, on the theory that " attention awakes, and the control over the muscles is braced up—danger is better perceived and more quickly avoided."

On the grounds of mere reason or common sense there seems to me little to choose between these two entirely conflicting suppositions. And unfortunately no scientifically controlled attempts seem to have been made to elucidate what actually is the influence of excitement on accidents, or indeed whether any such excitement really exists in the ordinary workman's life. In the absence of any objective evidence to substantiate it, this hypothesis of differential psychic states does not seem to add any independent support to the case against fatigue.

The fact of a falling curve of accidents observed by Dr. Vernon during the night-shifts merits, of course, the closest attention, and account must also be taken of the falling curve (rising in the last two hours) collected by the authors of Bulletin 106, but for reasons given below not published by them; exhumed and resuscitated by Dr. Ryan and copied by Dr. Vernon into Report No. 19.

While the evidence agrees as to the fall in accidents in the course of the night-shift, sufficient facts do not seem to have

been collected to warrant any conclusion as to the whole level of the night-work and the day-work ratio of accident to output. It cannot be concluded that there are on the average less accidents per unit of output at night than during the day, and hence all hypotheses of a calmer mental state at night than by day seem premature. The facts the hypothesis purports to explain (and for which it has been brought into existence) are not yet established. Many investigators have found a *higher* rate of *accident* by night than by day, and many a *lower* rate of *output*. The very night-shift production curve Dr. Vernon copies from Dr. Ryan is made up of output curves on five operations, one of which was studied also by day and showed that the level of output by night was some 25 per cent. lower than the level by day.

The more "legarthic" attitude at night that Dr. Vernon writes of would presumably apply to workers employed on every type of operation. But it must be pointed out that the "cuts" tabulated by Dr. Vernon seem to refer almost exclusively to accidents on one particular type of work, namely, turning fuse parts or shells, large and small, on power-driven lathes. Curiously enough, one [1] reason why the authors of Bulletin 106 did not publish the night-shift accident curve was because it referred almost exclusively to this very narrow range of work, whereas the day-shift accident curves referred to muscular and dexterous hand-work and machine-work of every type.

Is it not possible, then, that the falling curve is due to the peculiar type of work rather than to any psychic state differentiating work by night and work by day?

Large differences in the accident curve have been shown as between muscular, dexterous and machine-work, and it is quite possible that within the machine-work class the incidence of accidents on lathes may differ from the incidence on other machines. Corroboration of the importance of the type of work factors is afforded by the accident curve obtained in the American iron and steel industry, to which attention was drawn in the Report to the British Association. Here the work is intermittent, the workers are not *actively* employed all the time, and in the intervals can possibly recuperate. The same seems to be the case in operations on machines of lathe type. On the larger machines the operator remains inactive for long periods while the

[1] Other reasons were the absence of recorded power consumption curves at night with which to compare accidents on machine-work, the presence of day-shift men working overtime during the first three hours of the night-shift, and the impossibility of checking the accuracy with which the time of accident was recorded as was done for the day-shift.

machining is completed. On the smaller machines, the work is done in a series of "runs," often at so fast a rate that if the pace were uninterrupted throughout the working day, double the actual output would be produced. Here, again, the larger or smaller intervals between runs seem to allow for recuperation. And wherever such vicarious recuperation occurs throughout a spell, there is no reason to look for greater fatigue at the end of the spell than near the beginning or middle.

The Laboratory Test

The relative importance of the several factors is perhaps insoluble by gathering mass statistics in the factory. And in the second half of Report No. 19 an attempt is made by Mr. Muscio to solve the question under the controlled conditions of the laboratory. The attempt is praiseworthy as marking a move on the part of the usually unregenerate psychologist to throw himself into whatever breaches are left in the line of statistical investigation. But in the manner of the undertaking we cannot congratulate the Board. In fact the tests selected do not seem to have any bearing on industrial accidents at all.

Briefly speaking, one test consists in spearing (in time with a metronome) a series of small targets drawn on a sheet of paper and adding up the distances by which the bull's-eye is missed. The other test consists in pursuing with a test-tube a hollow swinging pendulum through which water is pouring, and counting the amount of water caught or missed.

Now it is taken for granted throughout that the circumstance of missing the target or the water is in essence similar to the circumstance of sustaining an accidental injury, and the whole fabric of the argument is built up on this complacent assumption. The facts are that, taking accidents to include even the slightest injury, a workman will sustain on the average not more than about one industrial accident a year, and that it is the result of a very unusual error indeed. One might as well add up the divergencies in the length of an oarsman's stroke as a measure of his liability to upset the whole boat!

While Mr. Muscio talks in terms of accident, he is in fact dealing not with accidents but with spoiled work. His laborious quest for the North-West Passage has led him not to China but to America, and he reaches results strikingly similar to investigations into spoiled work recently made in that continent.

Mr. Muscio is surprised to find the proportion of misses decreasing as work proceeds up to the third hour; an exactly coincident

decrease in the proportion of spoiled work was found in an American factory [1] by Dr. Ryan and myself. Later on, to be sure, in the fourth and fifth hours of each spell we found the spoiled work to rise, but unfortunately the Board's researches were not carried out beyond three hours of continuous work.

This "contribution to the study of accident causation," as it is called, seems to suffer from other defects; for instance, the confusion in the word "practice" of two conceptions—daily "warming up" and "learning," and the gross exaggeration, in the experiments with the metronome, of the variations in speed actually found in industry. But we do not wish to over-emphasise the few weak spots in what is on the whole an enterprising, painstaking and useful series of reports. We must ardently hope that the axe will be spared and that the social worker, the model employer, the labour research department, the real economist, the psycho-physiologist, and all, may continue to derive light and leading from the publications of the Industrial Fatigue Research Board.

P. SARGANT FLORENCE

[1] See *Journal of National Institute of Industrial Psychology*, January 1923.

REVIEWS

Money Credit and Commerce. By DR. ALFRED MARSHALL. (London: Macmillan, 1923. Pp. 369.)

IN this volume Dr. Marshall has brought together the substance of his earliest writings and the results of his latest reflections. Not all economists could with equal credit have confronted their present and past views. The confidence of youthful theorising might contrast too sharply with the caution that comes of experience. But with Dr. Marshall facts and theory have been ever kept in close co-ordination; united as body and soul. Contrasted with the majority of abstract theorists he resembles that venerable sage to whom it was granted, in a world of shadows, οἴῳ πεπνῦσθαι, τοὶ δὲ σκίαι ἀΐσσουσι.

The joint powers of observation and deduction are exercised in this volume mainly on two subjects which were not fully treated in the *Principles of Economics*, Money and International Trade. The "Quantity" theory of money has attractions for the mathematician, and has not been neglected by our author. He recognises that it constitutes a peculiarity in the circumstances determining the value of money; due to the fact that "an increase in the amount of money in a country does not increase the total services which it performs" (p. 49). But the principal contribution made in this volume to the theory of money consists of economic analysis rather than mathematical reasoning. The truth or truism expressed by the Quantity theory "does not indicate the causes that govern the rapidity of circulation: to discover them we must look to the amounts of purchasing power which the people of that country elect to keep in the form of currency" (p. 43). "In every state of society there is some fraction of their income which people find it worth while to keep in the form of currency; it may be a fifth or a tenth or a twentieth." This is a development of the doctrine expressed in Dr. Marshall's now classical evidence before the Gold and Silver Commission; where there is frequent reference to "the amount of cash which a person cares to keep," the "methods of business" (Questions 9634, 9086, 10,182 *et passim*).

The doctrine was expounded by Dr. Marshall in his lectures; as we learn from Mr. Keynes' reference in this JOURNAL (September 1920) to the cognate original work of Mr. Hawtrey. In view of the importance of this doctrine it is hardly an exaggeration to say with another recent writer: "The value of the metal is determined in the same way as that of other commodities by the same kind of influences acting on demand and supply."

A further exercise of abstract reasoning is required for the measurement of changes in the value of money. Without any display of symbols Dr. Marshall has thrown on this subject almost all the light that can be derived from mathematical sources. There is implied the first principle of the differential calculus, when it is said that neither the arithmetic nor the geometric mean "has any great value in regard to large changes"; vagaries occurring when extreme instances are considered (pp. 280 and 281); that "in regard to small variations of prices" the results given by the said two averages [and others] are nearly alike (*ibid.*); that the first principle of statistics, the mutual correction of errors, is relevant (p. 279); that errors in weighting are less mischievous than errors in prices (*ibid.*); and even—to the discomfiture, we fear, of some high authorities—that "in selecting representative commodities for an index-number, those which are liable to great variation are to be avoided generally" (p. 280).

With regard to the form of the average to be employed, Dr. Marshall prefers the Arithmetic Mean to the Geometric Mean, which is "not in close touch with reality" (p. 27). This ruling commends itself to us as proper to what Mr. Flux has called "the change in the money-cost of the things we buy," and as the natural method of calculating the measure of that change. *But we would like to have had Dr. Marshall's opinion* as to the use of the Geometric Mean in the new Board of Trade Index-number to denote an average change in the value of money, a trend of general prices, not quite identical with that primary conception. Perhaps the point may be retouched in the "companion volume" which is promised to us in the future.

Dr. Marshall does not parade the celebrated "chain" method which he introduced in the article published in the *Contemporary Review* of 1887, some of which is here in substance reproduced. But we understand that he contemplates the use of the method (p. 34). He would secure accuracy by the plan recommended in the *Contemporary Review;* first operating with the weights constituted by the quantities at

the first period, then starting from the second period, and taking the mean of the two results (p. 278). This method of ponderation is not quite the same as that recommended by the Committee of the British Association, 1887, namely, to form a compound weight for each article by averaging the quantities at the two periods. Dr. Marshall's plan has the advantage of affording a verification of the joint result, should the separate measures prove to be in close accord.

These technical directions are accompanied with many cautions against the abuse of index-numbers. Changes occur in things which at first sight appear to be the same (p. 33). The same article at different seasons means something different (p. 35). The advantage of large numbers (p. 279) is cut into by the incident that the larger the number of commodities, "the less trustworthy will be the inferences drawn from the list as to changes in general prices; for the simpler a commodity is, the more likely is its name to represent nearly the same thing at distant times" (p. 25).

The attention of statisticians should be called to Dr. Marshall's preference for wholesale statistics which "afford, with few exceptions, the best indications of changes in the general trend of retail prices" (p. 24). A *recherché* objection to retail prices—evidencing the attention to relevant particulars which we have claimed for our author—is afforded by the incident that a working man "is almost always under some inducement to over-state the prices which he pays for his household goods, especially for meat." Witness the prices at which meat is sold in working-class quarters of large towns, especially on Saturday night (p. 31).

With all reservations, however, it is concluded that an official unit of general purchasing power might be of service in connection with long-period obligations. In particular, governments when borrowing might give investors the choice between an income consisting of a certain quantity of gold coin or a certain number of official units (pp. 20, 37).

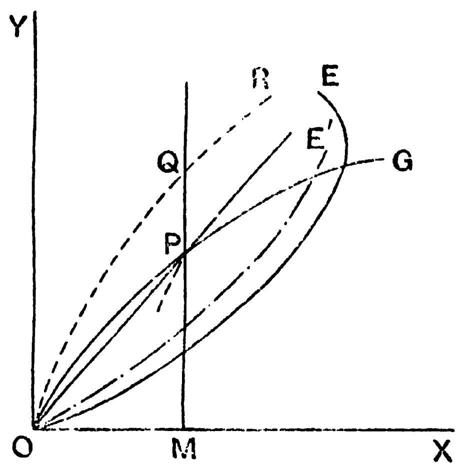
In this connection it may excite surprise that Dr. Marshall has not revived the suggestion which he made in his evidence before the Gold and Silver Commission (1887), to the effect that "the real value of gold" is to be measured by "the power which gold has of purchasing labour of all kinds—that is, not only manual labour, but the labour of business men, and all others engaged in industry of any kind" (C. 5512, Question 9025). The definition was not otiose: for upon the probable supposition that the real cost of obtaining gold in

the 'eighties was greater than that of producing commodities generally it would seem to follow that "appreciation," of which bimetallists complained so loudly, rightly defined, did not exist; defined as commonly, was not an evil. Apropos, it is interesting to observe that Dr. Marshall does not apprehend that "the cost of maintaining gold and silver will rise considerably in the near future relatively to general prices" (p. 53).

The notion of "real value" reappears in a conception which Dr. Marshall has introduced into the theory of international values. It is to serve the purpose for which Mill employed the term "cost" in the sense according to which a country gets a commodity cheaper when it obtains a greater quantity thereof with the same expenditure of labour and capital (*Political Economy*, Book III, ch. xviii. § 6). In a similar sense Professor Bastable defines a "unit of productive power," Professor Pigou the "real ratio of international exchange" (*Manchester Guardian*, Supplement, Section XI). More intelligibly, perhaps, Dr. Marshall supposes each country to make up her exports into representative "bales"; that is, "bales each of which represents uniform aggregate investments of her labour (of various qualities) and of her capital" (p. 157). There is some affinity between this conception and Mr. Bickerdike's idea of a money proper to each country,[1] if we superadd the Ricardian hypothesis that the "real" value of the money should be constant. Either the bales or the standard money may be employed to estimate the gain to a country from its foreign trade. The money conception lends itself to the reckoning which Dr. Marshall has instituted (pp. 162–3), on the analogy, as we look at the matter, of Consumers' Surplus in domestic trade reckoned in terms of money. In a more technical version (p. 339) our author with almost youthful vigour strikes out a new and somewhat mountainous route. We shall conduct the reader along a more familiar road so far at least as to enable him to locate the new path. In the accompanying figure, let the curve OG represent the terms on which Germany is willing to trade (p. 331); and let the curve OE be similarly related to England. Thus at the rate of exchange the "real ratio" (in Professor Pigou's phrase) denoted by (the tangent of) the angle POX, Germany would be willing to give PM of her standard bales (or commodities equivalent to PM of her standard money) in exchange for OM of England's bales (or commodities measured in England's money). If as P moves

[1] See Vol. XVII., p. 100, and Vol. XVIII., p. 542, ECONOMIC JOURNAL, for Mr. Bickerdike's project and the present writer's restatement thereof.

from O along OG there is constructed a curve OQ such that the tangent to the curve at Q which is vertically above P should be parallel to the line OP, the perpendicular QM will represent the total utility to Germany of her imports. The *line* MQ will correspond to the *area* which in the familiar construction for Consumers' Surplus (the ordinate representing price, and the abscissa, commodity) is intercepted between the demand-curve, the ordinate and the two axes. The net gain to Germany is shown by subtracting PM, what Germany has to pay in exports, from QM, what she would have been just willing to pay rather than to be without the imports. Those who adopt this construction would describe OQR as "the indifference curve" for



Germany through O; and they would imagine a similarly defined curve at P (of which the start to the left is shown in the figure) such that a point within (right of) that curve would represent terms more advantageous to Germany than the point P.

These constructions serve to bring out the relations between a country's gain through trade, or loss through interference with it, and the "elasticity" of her demand and supply. Mr. Bickerdike's definition of elasticity in terms of money has certainly the advantage in respect of familiarity. On the other hand, Dr. Marshall's use of elasticity with reference to change in real price, if we may so describe the rate at which standard bales are exchanged, brings out some important properties. The elasticity of demand is less than unity when the curve curls round like OE in our figure, so that the country, *e.g.* England, will not increase her purchase of imports *y* except on condition

of exporting a less quantity of *x*. This is the first of Dr. Marshall's "exceptional" cases; not always, perhaps, or everywhere exceptional, if Mill was, in his time, right when he decided that "speaking generally the third of three cases (that is, the 'exceptional' case just described) is the most probable" (*loc. cit.*, Section 5). With respect to present conditions, Dr. Marshall relies on the variety and resourcefulness of a rich and energetic country's supply causing her demand for imports to be elastic (p. 172).

Elasticity of demand or supply forms the criterion whereby to judge the consequence to a country of a tax or other restriction imposed by herself or the foreigner on the trade. For the consideration of the consequences of taxation the use of money, it must be admitted, is convenient. It avoids certain difficulties to which the careless use of "bales" is liable. But Dr. Marshall has with consummate skill avoided all the pitfalls with which the subject abounds. Now he postulates that "the import duty is levied in kind . . ." (p. 181) "if the whole of the goods taken under it were retained by the Government" (p. 346). Now he adverts to the nice distinction between a "bale," the unit-product of labour and capital, and "a certain artificially averaged quantity of each country's export goods" (p. 356). He is careful to include among the consequences of a tax what the Government gains (pp. 183, 348). With these precautions he investigates "the curious results of the imposition of import taxes by one of two countries, trading exclusively with each other, under all conceivable conditions of reciprocal demand and supply" (p. 356 *et seq.*, *et passim*). It is not to be denied that there may result a gain shared between the Government and the consumers of imports (p. 348). E (the country imposing the tax) might "obtain more than twice the old amount of linen for less than half the old amount of cloth." But, great as is the usefulness of Ricardo's method, "even greater are the evils which may arise from a crude application of its suggestions to real problems" (p. 190). Dr. Marshall is not sanguine about the possibility of taking into account the tendency of manufacture to Increasing Return and of raw produce to Diminishing Return (p. 189). However, there is no objection to speculation as to the results of conditions which have never been experienced (p. 165). It may prove to be of service in problems other than those by which it was suggested. The theory of international trade may be transferred to bargains between two bodies neither of whom is subject to external competition (p. 351). "The

conditions under which the building trade are willing to dispose of their services may be represented by OE; and the claims which their Unions make . . . may be such as to be rightly interpreted by the assertion that they can push this curve to the left into the position OE′, to their own advantage" (see our figure).

We have dwelt perhaps too exclusively on the more difficult parts of the book. There is, however, no want of plain-sailing, excellent concrete descriptions of various matters covered by the title. The author has been well advised in rehearsing elementary considerations for the sake of completeness (pp. 77, 140). He thus provides a royal road to precious mines which have been hitherto almost inaccessible. To complete the metaphor, sign-posts on this route require to be corrected at two or three points. We refer to certain lapses of pen or typewriter which, however obviously unintentional, might perhaps embarrass a new-comer. With this slight emendation the highroad will be like that which the prophet praises, such that the wayfarers, though fools, shall not err therein.

Leading by easy routes to the most difficult parts of economic science, this work is destined to be a powerful aid to scientific education. It would not have been improved by discussing in greater detail—or otherwise than by exposition of the relevant general principles—the burning questions of the present hour. If much of it might have been written in the 'eighties of last century, much of it will be read in the 'eighties of this century. It is, as far as what relates to human affairs can be, *in specie eternitatis*.

F. Y. Edgeworth

Monetary Reconstruction. By R. G. Hawtrey. (London: Longmans, Green & Co. Pp. vii + 147.)

It is not always wise to reprint, without substantial changes, a series of occasional essays when the occasions which called them forth have passed away; but in this case the venture is completely successful. For this there are two reasons. In the first place Mr. Hawtrey is gifted with so rare a power of seizing the essentials of the present and of forecasting the future that the reader has no excuse for feeling that his time has been wasted over matters which proved in the event to be of no consequence. Secondly, a single dominant thought gives unity to the whole series: the pearls are strung on a single thread—the conviction that the general level of prices can and ought to be controlled by the manipulation of the rate of discount.

The first essay, written in September 1915 on the fall of the American exchange, is among the most interesting. In it we find already (pp. 23–4) a succinct and penetrating version of two theories which were not to become commonplaces for many a long day—the theory of inflation by Governmental borrowing from the banks, and the purchasing power parity theory of the exchanges. It is difficult to resist Mr. Hawtrey's conclusion that at this period of the war a sharp rise in bank-rate would have had the effect of compelling resources into Government service: though whether the politicians would have been right to face the psychological consequences of a little healthy trade depression is a matter which cannot be decided even in retrospect on purely financial grounds.

Of the remaining essays, No. V stands somewhat apart as a convenient and informing description of the structure and activities of the Federal Reserve system; though here again the chief emphasis is rightly laid on the function of the Federal Reserve Board in controlling credit, and the Board is subjected to some gentle criticism for its hesitancy both in raising rediscount rates in the winter of 1919–20 and in lowering them in 1920–21 when the rise had done its work. It is interesting to note Mr. Hawtrey's preference for a "maximum uncovered issue" as opposed to a "proportional reserve" system of regulating note issues, on the ground that the vaunted elasticity of the latter is a snare, and adds to the danger of crisis in times of contraction.

The currency system which Mr. Hawtrey proposes for the world may be briefly outlined as follows. Each country so soon as practicable is to give its currency a defined value in terms of gold, whether (as in our own case) the old value or (as in that of most of the ex-belligerents) a new value more in accord with market conditions. Care must be taken not to choose such a high value as to lead to a breakdown, nor (though this danger is disappearing) such a low value as to necessitate a great increase in home prices and wages. To ensure economy of gold, the values thus determined are to be maintained by means of a gold exchange standard: the participating countries are to hold balances in one another's currencies, and movements of relative prices and exchanges are normally to be corrected by the sale or purchase of these balances rather than by the export or import of gold. But the system is still incomplete; for there is still the danger that the value of gold itself will be subject to violent fluctuation, either owing to the ill-judged

efforts of ambitious countries to secure metallic reserves, or (as in the last three years) owing to vagaries of policy or ineffectiveness on the part of the monster which has swallowed two-fifths of the world's monetary gold—the Federal Reserve system. Hence the value of gold itself must be kept stable by means of a concerted discount policy on the part of the various central banks.

There is little doubt that Mr. Hawtrey, like Professor Cassel, deserves well of the world for harping continuously on this one theme. Bankers, as he points out, have been for so long accustomed to regard the regulation of gold reserves as the main object of discount policy and the effect on trade activity as an incidental and sometimes pernicious by-product, that it needs something like a revolution of thought to induce them to use the old weapon consciously and continuously for well-defined ends. And Mr. Hawtrey makes great demands on them; for they are not to be allowed (like Professor Fisher's gold-dealers) to pin their faith to a mere mechanical index-number, but must take account of every feature of the trade situation. Nevertheless it is clear that in the long run nothing else will serve. The old method of regulating credit with reference to reserve proportions was at the best clumsy and slow in its operation upon trade, and under modern conditions may lead, as the present position of the Federal Reserve System shows, to preposterous results. Man must take another step forward in the exercise of control over material forces. What with Mr. Hawtrey and the Stevenson Committee and Dr. Stopes, what a long way we have moved from the days when the invisible hand could be trusted to do all things well!

And now for a word of criticism, or at least of caution. Mr. Hawtrey's remedy is certainly no quack nostrum, but is it really a panacea? Is it certain that any tolerable rise in the discount rate will bring people to reason when their imaginations are out of hand, or that even an extreme fall will tempt them if they have made up their minds to be sulky? Yes, says Mr. Hawtrey; I will not only take the horse of industry to the water, but I will make him drink, and I will prevent him drinking the trough dry. But is the halter of the discount rate really strong enough?

Secondly, while Mr. Hawtrey recognises, as any student of the 1920 slump must recognise, the disturbing element introduced into his problem by that wayward entity "the velocity of circulation of bank deposits," his solution seems a little optimistic. "The changes in rapidity of circulation arising from control of

credit *reinforce* its effects" (p. 139). Precisely, but may they not reinforce them so violently as to make the mechanism of control impossible to manipulate with accuracy?

Thirdly, not every one will agree with Mr. Hawtrey that "the trade cycle is a *purely* monetary phenomenon," nor be convinced by his *argumentum ad hominem* that even if it is not, a complete cure is to be found in credit control. It is surely the extreme of paradox that if stocks of commodities are short, merchants must be prevented by high rates of discount from seeking to replenish them (p. 142). How else is abundance ever to be restored? And could credit control have prevented—*ought* it to have prevented—the post-war "replacement boom" in ship-building or "arrears boom" in cotton cloth? And in so far as the problem *is* soluble by monetary means, may not our new generation of enlightened bankers have to face a task more difficult than a mere manipulation of discount rates—a selective rationing of loans between different industries, and in particular between the constructional industries and those making for immediate consumption?

One more criticism on a different matter. Mr. Hawtrey's gold exchange standard is to be so comprehensive that the use of gold, even for the settlement of international balances, is to be practically eliminated: even England and America are to close their accounts not by gold shipments but by dealings in each other's currencies. As Mr. Hawtrey admits (p. 136), the result would be such an economy of gold as to produce a cataclysmic fall in its value, which would surely seriously increase the difficulties of inaugurating the new system. But if gold is neither to be trusted as a standard of value nor used as a means of payment, its function seems to become purely mystical, and its retention hard to justify. Mr. Hawtrey assures us that it is not a mere concession to prejudice, but his alternative explanations—political insecurity, the vested interests of gold producers and of the beneficiaries of international debts fixed in gold—are not very convincing. His practical instinct is probably right in coming down for the present on the side of the retention of gold; but if it is to be retained, somebody must be allowed to play with it, and the show must not be given away by a too general recognition of the virtues of an exchange standard.

This is a brilliant book, deeply intellectual in design and distinguished in execution. Happy the country which has such firm and subtle thinkers in high places!

D. H. ROBERTSON

The Problems of Population. By HAROLD COX. (Jonathan Cape. Pp. 198. 6*s*. net.)

IN this small book Mr. Harold Cox travels over ground which is for the most part well known to economists interested in social reform, and yet I hope that it will be read by all of them. Unpopular causes are here advocated in a fearless fashion which is characteristic of the author. Of course he may be mistaken in some of his views—I might say in our views, for I find myself to a large extent in agreement with him—but if so it lies with our critics to expose our errors. The subjects dealt with are so important for the future welfare of mankind that no one who is dealing with any cognate questions should pass them by unconsidered.

Under the heading of the arithmetic of the problem we are first shown, with the aid of many familiar analogies, that a population cannot increase indefinitely by geometrical progression, that checks on such an increase must inevitably be introduced sooner or later, and that indeed they are practically always in operation. Mr. Cox is no doubt intending to address the general public, and he is, therefore, right in making his illustrations as simple as possible. It appears to me the fundamental fact which the politician ought to grasp is that, in a stationary population, the disappearance of one couple must always be made good by the appearance of another couple, no more and no less; and that, consequently, in these circumstances the average size of the family must be exactly two, if only those who live to have offspring be counted. If on the average more than two of the family survive to become parents, the population must be increasing. By simple facts like these, our legislators should be made to see that a high birth-rate must normally result in a high infantile death-rate, with all its attendant miseries.

Passing on to the economics of the problem, here we are reminded that the application of machinery to agriculture lessened the number of hands needed for the production of a given quantity of food, and that large numbers were thus set free for employment in other industries, these being most readily carried on in towns. All the raw materials for these industries coming from the earth, and none of the sources of supply being inexhaustible, the conclusions arrived at by Malthus are shown to be essentially correct. England is, therefore, either now actually over-populated, or is faced with an ever-increasing excess of numbers in the near future. True, the situation

might be met temporarily in a measure by intensive cultivation; but in time it would be seen that it is not worth while coming into the world " merely to plant potatoes, to eat potatoes, and to die " (p. 38). Other cures for over-population must be found, or the unemployment problem will steadily become more severe, with a gradual deterioration in the standard of our civilisation. Emigration cannot supply the necessary alleviation; amongst other reasons because the kinds of men we can spare are not the kinds wanted overseas. Moreover, we can deduce from the figures here given that it would require a shipload of about a thousand emigrants to leave our ports every day in the year in order to relieve the country of its surplus population. It may be that Mr. Cox does not admit that agriculture may go through a period of increasing returns in sparsely populated countries, because of an increase in the use of machinery and because of a steady diminution in the distance between farm and market; but this fact, if it be one, will soon be of only theoretical interest. The whole world will before long obey the law of diminishing returns, when an increase in the population will everywhere mean a decrease in average wealth.

An increase in numbers is now often demanded on military grounds, a plea which in France is leading to many methods of attempting to stimulate human fertility. In England the experiences of the Great War seem to indicate that the cutting off of our food supply might be our greatest military danger in the future, a danger which might be increased by every increase in our numbers. In any case neither England nor France can hope to compete with Germany in a baby producing race, the initial handicap against us in numbers being too great. Mr. Cox's view is that the chief cause of war in future will be the economic rivalry of democratic governments, a rivalry which would certainly be stimulated by any steady increase in numbers. Hence French and German efforts to increase the birth-rate will inevitably increase the chances of war. It becomes a moral duty for every nation to limit its numbers, and a league of Low Birth-rate nations for mutual military protection is suggested. Certainly the dread of a steady increase in the population of Germany is one factor driving France onward on her questionable path; a dread which she cannot be blamed for entertaining.

More specific allusions might here have been made with advantage to the increase in the danger of civil disturbances and revolution which must arise from over-population. In this

connection the following extract from a letter recently written by Sir Horace Plunkett may be of interest. He tells us that one of the two reasons why the existing paramountcy of physical force in Ireland was established may be stated as follows :—

> "When peace comes the Free State will somehow have to absorb tens of thousands of the young men who are the tools of the architects of chaos—the women are beyond my comprehension. These young men represent the surplus product of the small farms and small towns, who, in normal times, make their careers in the United States and in the British Dominions. In the war years these successive crops of this surplus were unable, and, in the succeeding years, unwilling, to leave their country. Public opinion, to which the Irish are notoriously susceptible, not only compelled these young men at the most impressionable time of their life to keep out of the big war, but equally drove them into a guerrilla war against the British army. It was an education in brigandage. This absorption will be the chief practical task of Irish peace." [1]

Mr. Cox pleads strongly in favour of quality as an element of military strength, and that plea I wish most strongly to endorse as regards every aspect of the birth-rate of our nation in the future. Additional safety might be secured by racial improvements without any additional risk of war. In this connection the records of the mental examination of the 1,700,000 recruits who entered the American army during the Great War appear to me to be capable of yielding much valuable information. We know that the rate of increase of our population in the different strata of society varies very greatly; and we know that in 1911 the population of England had increased by about 50 per cent. in the preceding twenty-five years. Now for the sake of argument let it be assumed that, although a like increase is now taking place, these additional numbers are being added to the lower half of the nation as judged by these mental tests; and it would, in fact, be hard to prove that this is not the case. The American investigations proved that the average mental age of the whole population was about $13\frac{1}{2}$ years; and I judge from the figures given that if the lower half of the population of that country were now to be doubled in numbers, whilst the top half were to remain stationary, the average mental age of the whole nation would be reduced to under 12 years. Let me confess that this may be fairly described as an impressionist statistical result, which is only here mentioned in order to

[1] *Times*, March 20, 1923.

stimulate trained statisticians to undertake more accurate inquiries. It is true also that much might be said did space permit as to the meaning of the term mental age; and, moreover, that the American tests certainly did not altogether eliminate the effects of environment, as was no doubt intended. It is, however, to be observed that many of those who have been closely connected with such inquiries are convinced that the differences detected by these mental examinations are largely innate, and therefore only to be somewhat reduced by improvements in the breeding of the lower intellectual strata. After making all deductions on these accounts, it yet appears certain that a material fall in the average mental age of our nation might be brought about in the course of a few generations by differences in the birth-rates of the different strata. This might occur without any noticeable change taking place in the birth-rate of any one class taken separately. It would be like the slow and unperceived advent of old age; and old age would come on quite unnoticed if we were as ignorant of its symptoms as politicians are of those signs of decay which preceded the downfall of many an ancient civilisation. In fact the differential birth-rate may be gradually sapping our military efficiency, and may be producing even more disastrous effects on the civic qualities of our nation. Can anyone prove that no such slow deterioration is now taking place?

Mr. Cox passes on to prove, as I think conclusively, that the introduction of any drastic socialistic system would inevitably lead in time to the introduction of drastic checks on the population; for numbers would thus be made to increase even more rapidly than at present, and the evils of over-population would come to be more easily recognised. Socialists should, therefore, be the first to join in a campaign to prove that "where the birth-rate is uncontrolled, poverty will continue" (p. 110). This is partly due to the fact that "a high birth-rate means a relatively large number of children who for many years can only be consumers of wealth" (p. 122). Stress might also be laid by the advocates of birth control on the fact that children bring no capital into the world with them; or, in other words, that an increase in the population must result in an immediate decrease per head in the facilities for production.

Questions connected with racial improvement are next dealt with; and here I cannot but feel that it would have been an advantage if the words "race" and "racial" had been clearly defined. The saying "bon chien chasse de race" does not

allude to those qualities of a hound which are due to its training; and it would make for clarity of argument if the word "race," having due regard to its etymology, were only to bring to mind a certain similarity in those qualities which are inborn or which result from a common line of descent. For example, it is not easy to interpret the statement that the inhabitants of slums, by producing children, "are lowering the average strength of the race" (p. 129); for it might imply that qualities acquired in bad surroundings are transmitted as a natural inheritance to the next generation to a material extent, a view generally repudiated in the scientific world. Again, in connection with questions of racial stock, Mr. Cox alludes in no complimentary spirit to those who hold that "the diminution of the struggle for life would provoke decay" (p. 154). He might with advantage study Professor Pearson's elaborate proofs that natural selection is still in operation, and that the struggle *for existence*, in the scientific sense of these words, is still producing immediately cruel but ultimately beneficial effects. Unless the distinction between racial and environmental effects is very clearly kept in view, unjustifiable deductions may be made. Dr. Brend is quoted as saying that "the total (infant) mortality in urban areas as a whole exceeded that in the rural by 25 per cent." (p. 57), these words being held to indicate that urban conditions are unhealthy in comparison with those obtaining in rural areas. But may not a certain proportion, large or small, of this excess in the death-rate in towns be due to the inferior natural qualities of the town dwellers? The cotton-spinning towns contain a smaller and weaker race of men than do the mining areas; the explanation being that many youths who were too innately feeble to work in the mines drifted into the manufacturing towns, there to reproduce their kind. In like manner many of the weaker children born in the country, being the last to get employment, might often have been the first to migrate to neighbouring towns. And the fact that in urban areas baby clinics, hospital nurses, doctors, etc., are more accessible than in sparsely populated country districts, may explain the fact mentioned by Dr. Brend, that the greater urban death-rate, which I suggest is largely due to inferior natural qualities, does not obtain in the earlier months of infant life. Mr. Cox is, of course, right to denounce slum life; but can he bring conclusive proof of the relative unhealthiness of life in fairly well-regulated towns?

The only way to get rid of a C3 population, we are told, "is to persuade C3 parents to refrain from producing C3 children"

(p. 139), and this is to be done by birth control of some kind or other. If Mr. Cox would omit the last "C3," I should only differ from him in this matter in being rather more pessimistic; for I fear that a considerable section of the population will be found to be quite unpersuadable, unless indeed "persuasion" be enforced by very drastic "sanctions." I agree that "it is impossible to estimate the amount of human misery that could be saved if all these poor mothers were placed in possession of information which would enable them to control conception" (p. 134); and therefore I hold that birth control must be recognised. But I believe that its attendant evils will be more readily combated if in no way minimised. Promiscuous intercourse will probably be somewhat encouraged; at all events amongst those who are now only virtuous through fear. Again, every strata of society contains persons endowed in very different degrees with those natural qualities which promote prudence and forethought; and it will always be those most highly endowed in these respects who will be most readily persuaded to adopt birth control methods. Every fresh advocacy of birth control will produce both eugenic and dysgenic results, and it will always be difficult to be certain which will prevail. Personally I shall join no birth control organisation which does not condemn the undue use of birth control amongst the more fit quite as persistently and forcibly as it advocates birth control amongst the less fit: for I hold that racial deterioration in the future, if no steps be now taken to check its advent, will prove to be a greater evil for mankind than over-population to-day.

After dealing effectively with mental defect and insanity, Mr. Cox is led on to discuss sterilisation; a subject he tackles in his usual fearless style, for which we should be grateful. He suggests, rightly as I hold, that it should be adopted at first as a voluntary measure; in the case of mental defectives, however, the consent of the relatives being a sufficient safeguard. Here, again, I am inclined to lay somewhat more stress on the disadvantages accompanying surgical sterilisation. For females a major operation is necessary; though in this respect we find no argument whatever against the sterilisation of males. As a method of sterilising mental defectives, segregation presents great advantages, especially because it is so often the kindest course to adopt. Lastly, there is a strong instinctive dislike to all interference with sexual functions, an instinct for which there is an adequate evolutionary explanation; and to overcome any such deeply implanted feelings may prove to be a difficult task, needing much

patience. Nevertheless, without the aid of sterilisation it will, in my opinion, probably prove to be impossible to prevent the slow decay of our civilisation. I hope some day Mr. Cox will advocate a thorough inquiry into the efficacy of X-rays for this purpose; for by their use it may be possible to overcome some of the inevitable opposition to sterilisation in any form.

I do not propose to follow our author in his last chapter, where he deals with the ethics of birth control; for space forbids. It is for those who rely on Biblical arguments to answer him in that line of reasoning, if they can. It is for those who assert that the public sanction of birth control would necessarily make the world a less happy, healthy or noble abode for man to prove their case, if they can; and I believe that they cannot.

LEONARD DARWIN

Outspoken Essays (Second Series). By WILLIAM RALPH INGE, C.V.O., D.D., F.B.A., Dean of St. Paul's. (Longmans, Green & Co., 1922.)

WHEN Dean Inge discusses economic questions, as in several of these essays, he falls into more than one of the pitfalls that lie in wait for specialists in one field when they enter another. He thinks he is dealing with an easy subject, prefacing a highly questionable statement with "It must be clear even to the least intelligent member of the House of Commons"; he assumes as true widespread and very harmful popular heresies, such as that more machines "would reduce the number of men and women for whom employment could be found"; and he condemns avowedly imperfect measures, such as the provision of "doles," without suggesting any substitute which alone could make then unnecessary.

The prevailing characteristic of Dean Inge's economic point of view appears to be distrust of too high hopes for progress or for man, which, though it need not logically result from the philosophic principles he holds, does appear to be the psychological result in his case. He has an *a priori* disbelief in the likelihood of any considerable measure of reform, and a consequent belief that our present economic system is permanent, or at any rate unlikely to be bettered. He regards with contempt the "popular faith that everything is possible to organised effort," though that faith in its best form is strangely similar to what he himself says was characteristic of early Christian thought—"the vigour of hope in the minds of men, combined with great fluidity in the forms or moulds into which it ran."

Hope or confidence is important in the economic as in other realms, and it is largely through the lack of this Christian quality that the wheels of industry have run so slowly recently. Ca' canny, which, as Dean Inge sees, is responsible for much, is the result of false economic doctrine, very widely held, namely, that there can very easily be too much of a good thing, that over-production is likely, that there might well not be work enough to go round. This is a belief, true in the short run and in specialised fields, but absolutely false in the long run and wide view, which is shared by many employers and employed alike, and apparently by Dean Inge himself, judging from his statement already quoted about machinery.

We need also to be hopeful and enterprising in working for international agreement which may prevent the workers of one race from endangering the standard of living of another race by selling their labour too cheap. This, which Dean Inge does not even allude to in his essay on the "White Man and his Rivals," is no utopian idea; international labour regulation has already begun, and its development depends largely on our faith in its possibility and desirability. Economics without faith is indeed, and has always been, a dismal science, and, stimulating and witty as he is, Dean Inge's popular nickname is not unjust.

ANNE ASHLEY

The Decay of Capitalist Civilisation. By SIDNEY and BEATRICE WEBB. (Longmans. Pp. vii + 182. 2*s.* 6*d.* and 4*s.* 6*d.*)

IN bringing their new book to a conclusion, Mr. and Mrs. Webb themselves supply the appropriate short title and description. "We have never before," they state, "framed an indictment of the capitalist system"; and, a moment later, they claim that they have in the past abstained from "moral judgment of capitalism." The first part of their *Socialist Constitution* might perhaps have been excepted, and even the earlier works left on the careless reader the impression that the authors had made some very general criticisms of the existing economic order from a very definite political standpoint. But it is true that their pre-war books were either historical or, if their subject matter was a contemporary problem, were directed to establishing some constructive proposal, and that the criticism in the post-war books—the one under consideration in particular—has a new object, or at any rate a different emphasis. Perhaps Mr. Tawney's recent

essay suggested to them that they might deliver themselves of a final judgment on modern civilisation; certainly they have earned the right by the great contribution they have made to our understanding of it. It is as difficult to frame an indictment against a "system" or a "civilisation" as it is against a nation; but if the thing is to be done, it is here done well.

Mr. Tawney diagnosed as the chief disease of modern society the right of "functionless property," and attributed to it many evils that might more easily be traced to the unequal distribution of the property. Mr. and Mrs. Webb adopt his phrase and share his dislike of the institution; but, with a truer sense of economic actualities, they stress the resulting inequality as the chief evil. The difference is perhaps only one of emphasis, since the inequality itself is attributed to the private ownership of capital; but one can follow and accept the demonstration of the extent and results of economic inequality without accepting the necessity of abolishing the private ownership of capital.

This demonstration is the chief service of the book. Mr. Veblen, Professor Urwick and Mr. Withers, to mention no others, have dealt with particular aspects of the subject; Mr. and Mrs. Webb make it the chief count in a comprehensive indictment of the whole economic order. The reforms that they urged before the war, deducing them from their historical and descriptive studies, the "Policy of the National Minimum" and the "Prevention of Destitution," are now declared to be insufficient, because they would leave inequality unimpaired. Of the four main criticisms that Socialism makes of modern industry—unnecessary poverty, inequality of income, inequality of personal freedom, and an unscientific and immoral organisation of production—the three first are incidents or aspects of the one fundamental evil of economic inequality. The misdirection of production, the economic waste, the inequality of social status that counteracts and impairs a nominal political equality and an alleged equality before the law, are set out clearly and logically. Moreover, having adopted a form and tone of statement that imply personal responsibility somewhere, Mr. and Mrs. Webb have the candour to indicate the persons against whom the indictment lies; "as the institution makes each owner a member of a privileged class, and could be superseded by more advantageous arrangements if the class would give up its privileges, it is not altogether unfair to hold each and every member of the class responsible for the results of these privileges"—with the stress laid by the context on the word "owner."

Unfortunately the literary form best suited to stab the acquiescent rich (if they ever read the book) into consciousness is not the best suited for a complicated piece of economic analysis, and the present book has not the value to the student that the authors' historical works possess. An "indictment" can hardly be scientific; it must simplify unduly to make its points, and overstate its case to press them home. The chapters on inequality and its results are free from these faults; the same can hardly be said of the chapters on the initial success and eventual failure of the Capitalist System and on the System as a cause of war. These chapters make exciting reading. The section headings—The Ruin of National Resources, The Worsening of Commodities, Gain without Production, The Hypertrophy of Selling Agencies, How Over-Production Occurs, The Loss of the Whip of Starvation—provide a series of texts for revolutionary oratory and a catalogue of problems for responsible statesmanship. But they hardly give a just and balanced view of the actual working of industry to-day.

A priori it is unlikely that we shall be able to explain all the evils here attributed to it even by an institution so fundamental as the private ownership of capital. In spite of the lengthy definition, which the authors, "at the risk of pedantry," give on p. 4, it is not clear what exactly they intend to cover by the phrase "capitalist civilisation." They date its decline from about 1850; one would have thought that the decade that saw the extension to industry in general of the principle of limited liability joint-stock, and the foundation of an effective system of public control by Factory Acts and trade unionism, marked the true beginning rather than the decline of modern capitalism. The argument constantly seems to assume that the ownership and control of capital are still united, or, at any rate, that their separation means the end of capitalism; it does not distinguish clearly between the control which the rich exercise over industry as purchasers and the much more shadowy control that the "functionless" among them exercise as stock and bond-holders, between profit as an incentive and profit as an accounting device for confining cost within the limits of demand; it treats the combination movement (which it exaggerates) as the negation of the principle of private enterprise, and the modest provision of unemployment relief since the Armistice as the death-blow to capitalism; a whole section is devoted to the argument that "capitalism" broke down, once the "whip of starvation" was taken out of the capitalist's hand; all of which seems to point to

a conception of industrial organisation which may have been accurate in 1840, but is not the industrial organisation of to-day. Either the criticism is an academic exercise, being directed against the sins of a generation that is past, or, if it aims at contemporary evils, it does not always find the mark.

A similar neglect of dates appears in the treatment of the most recent period. In excusing the book (or excusing themselves for not writing it sooner—it is not clear which) the authors adduce the "acquiescence in the progressive development of political and industrial democracy" before 1914 and contrast it with the post-war reaction; they mention particularly "the establishment, for millions of workers, of a legal minimum of wages . . . and . . . the progressive allocation of a steadily increasing share of the national income" to pensions, education and the like. But there were only half a million workers under the Trade Boards Act in 1914; the big extensions were made under the 1918 Act. And the proportion of the national income directed to the wage-earning class by authority has certainly been greater since the war than before. The war itself is treated as a result of capitalism, and not rather as the main cause of our present economic disorders; it is represented as a war *for* markets, and not, as it obviously was, a war *between* markets, that badly needed each other. And not only are this war's effects slurred over; the suffering that attended the first two decades of the nineteenth century, and the rise in the Poor Rates that indicated it, are attributed wholly to the Industrial Revolution, with no suggestion that the Napoleonic wars may have had something to do with them.

It is over-simplification again to ignore the distinction between the evils that are due to private ownership of capital and those that are inherent in large-scale, specialised production for the market. Take the reference on p. 15 to the increasing inequality "between the relatively small class of persons who *own and* organise the instruments of production and the mass of the people whose livelihood depends on being permitted to use them"; suppose the words italicised to be deleted; would the essential inequality of conditions which any large-scale organisation involves have disappeared? Or the reference on p. 58 to the unrepentant Liberal, who refuses to recognise that a man who is divorced from the instruments of production cannot live his own life; is it not the nature of the machine, rather than the ownership of it, that reduces the worker to the status of a cog? The dependence of the capitalist organisers, even the biggest of them, on the

market is usually ignored, the possibility that profits may give place to losses is not stressed, the practical problem of valuation and distribution is hardly faced. There seems to be an authoritarian bias in the authors' thinking that makes it difficult for them to appreciate the conception of an economic organisation based on spontaneous contract; they hark back with regret to the war-period, when Authority decided what we should do and what we should be paid and what we should consume, without apparently realising that all this authoritative direction was only possible because the war gave an accepted, over-ruling, national purpose, by reference to which priority scales could be constructed and "control" substituted for market determinations. It is significant that they speak of the capitalist system "*incidentally*" training the nation in the science and art of co-operative working in industry, transport, commerce and finance!

The object of a book is to analyse and judge, but the analysis is influenced by the conception of a different organisation which the authors have described elsewhere. In the early part of the nineteenth century, it is pointed out (pp. 83–4), the alternative of a "public or collective organisation" was not practicable. "Profit-making was, in fact, at the opening of the nineteenth century the world's substitute for qualities which did not at the time exist, for self-discipline, for professional technique, for scientific knowledge, for public service, for the spirit of free association, for common honesty itself." It is gratifying to know that these social assets are now available for reconstruction, even if they have not yet been used to construct the alternative "public or collectivist organisation." Meanwhile the economic order that was established by the reformers of a hundred years ago in essentials persists. Are its fruits really so bad as a reading of Mr. and Mrs. Webb's book suggests?

When I had finished reading the very convincing demonstration of the complete failure of capitalism in the latter half of the book, I could not help thinking of the "man midwife's" demonstration in *Tristram Shandy* of the impossibility that anybody could have been born before the recent advances in obstetrical science were made available, and Uncle Toby's comment: "'I wish,' quoth my Uncle Toby, 'you could have seen what prodigious armies we had in Flanders.'" Who would expect, after reading of the "hopeless inefficiency" of modern industry, of the "wholesale degradation of the nation" under the present system, of the "universal sabotage" inherent in the present organisation, of the "struggle for pecuniary profit among rival groups of capitalist

entrepreneurs as having been the most potent cause . . . of recent international conflicts"—who, after reading all this, would expect to find that real wages had increased 80 per cent. between 1850 and 1913, that a rapidly increasing population had been maintained at a steadily improving standard of life (until war intervened), that the last century—the century of capitalism—included more years of international peace, few as they were, than any century since the peace of Rome was broken? Mr. and Mrs. Webb have contributed more than any other writers to our knowledge of the historical processes by which conscious public control has been imposed on industrial conditions and industrial relations, they have been more fruitful than any of their contemporaries in proposals for improving that control, but they make one wonder sometimes whether they are really interested in industry itself, in the spontaneous organisation by which forty millions of people in this little country are somehow fed, clothed, housed and amused, so regularly that the achievement escapes our notice.

HENRY CLAY

Recent Economic Developments in Russia. By K. LEITES; edited by H. WESTERGAARD. Publication of the Carnegie Endowment for International Peace.

La Débâcle des Soviets et la Restauration économique de la Russie. Mémoires présentes a la Conférence de Gênes par l'Association Financière, Industrielle et Commerciale Russe. (Paris, 1922.)

Russia after Four Years of Revolution. By S. S. MASLOFF; translated by A. G. PASCHKOFF. (London and Paris, 1923.)

La Législation Sovietique et la Conférence de la Haye. By AL. PILENCO. (Paris, 1922.)

IN attempting to pass judgment on anything written about Russia under present conditions there are several points which must be kept in the forefront of one's judicial vision. In the first place, the whole Russian problem is of such appalling complexity, the territory and population are so vast, the sources of information are so diverse, and frequently so unreliable in spite of the often irreproachable character of the observer or reporter, as to make it necessary to accept any statement of facts or any conclusions drawn therefrom with the greatest reserve. Another even more serious difficulty lies in the fact that most of the information available about Russia comes of necessity from individuals whose most vital interests have felt the touch of the

terrible events of the last few years. Only a superman could have passed through such experiences and emerged with his judgment wholly unwarped. By the very nature of things the more normal observer is filled with prejudices. He may pronounce perfectly honest judgments, but these judgments are built up around facts as he sees them, and he inevitably sees them in the light of his prejudices. A third difficulty arises from the extreme rapidity of the movement of events. It is impossible for any writer to publish anything on Russia quickly enough to avoid having some of his material already out of date. And the greater the care he exercises in preparing his work, the more time he spends in checking his statements, etc., the less valuable will be his data as giving a picture of conditions at the time of publication. All four of the publications under review suffer from these inherent difficulties of the subject, though in different degrees.

The first of the above books may be recommended to readers who wish to obtain a general view of economic events in Russia from the outbreak of the war down to the end of 1919. The first two parts into which the work is divided (Part I, General Effect of the World War on the Economic Life of Russia prior to the Bolshevic Revolution; and Part II, Results of the Economic Policy of the Bolshevists) are admirably suited for this purpose. The material has been carefully digested, and the results are presented with clarity, conciseness and impartiality. There has been some carelessness either in compilation, translation or proof-reading, for a number of statistical blunders have been permitted to creep in, but on the whole they are not of such a nature as to affect seriously the usefulness of the work. Of Part III, however (Economic Life in Soviet Russia in 1920), one might almost say it would better have been omitted. As a historical record it might have some value it if were well done, but unfortunately it presents a marked contrast in this respect to the preceding Parts. It is scrappy and unconvincing; its use of technical trade terms and names is amateurish and confusing; and its statistics are just sufficiently full of obvious errors and glaring inconsistencies to make one hesitate to accept any of its figures with confidence. In any case, its statistics are now so far out of date as to be of little use to a reader wishing to keep himself *en rapport* with the present Russian situation.

The *mémoire* on *La Débâcle des Soviets et la Restauration économique de la Russie* commands one's immediate attention because of the evident care with which it has been prepared, the admirable form in which it is presented, and the general fairness

of tone on the part of the memorialists, who might have been expected to voice their grievances instead of attempting to formulate constructive suggestions. The Association presenting the *mémoire* is made up, according to its own statement, of financial, industrial and commercial interests, "proprietors and directors of enterprises and resources of Russia valued at many milliards of gold roubles." The *mémoire* is a statement of their case before the world, and they have made it with admirable poise. In their presentation of facts one rarely finds any evidences of bias; only here and there is a word or phrase which betrays an animus. On the whole, all those parts of the *mémoire* which deal with the statistical basis of the situation give as complete and fair-minded a picture as anything that has yet been published. Unfortunately, the data are brought down only to the first months of 1922. A few developments have taken place since then which modify the picture slightly, but they are of no great consequence.

When the *mémoire* turns to the constructive side, however, it is necessary for the reader to use greater caution. The former industrial, financial or commercial leaders of Russia have been through the fire of the most terrible conflagration the world has ever seen. By the very nature of things their impulse is towards remedies which merely reverse the movement which brought about the cataclysm. Their judgment, however honest in intent, is, by the force of circumstances, held in the groove which leads towards a return to "normal"; that is, to conditions exactly as they knew them before

The object of the *mémoire* is to elucidate the conditions upon which any real reconstruction of Russia must be based. This it does at considerable length, but the summing up of its conclusions might be put into a single sentence: "Restore the entire political and economic institutions of Russia to the status of 1914; reinstate the proprietors, owners, directors, etc. of industry; and grant them large foreign loans for the rehabilitation simultaneously of all industries." They will listen to no suggestion of compromise in the matter of State control, management, or ownership of any industry whatsoever; they reject any sort of piecemeal reconstruction, beginning, say, with agriculture, and passing in time up through mining, metallurgy, manufactures, etc.; they spurn the suggestion that Russia is so far reduced economically that the only prospect for recovery lies in treating her to all intents and purposes as a *terra nova* whose re-emergence into the economic world of affairs must come gradually, beginning with

the export of food and raw materials, and the import of manufactured goods.

The *mémoire* is not convincing on these points, and there are many reasons for refusing to accept its conclusions. Nevertheless, it performs a real service in presenting the case clearly and forcefully.

Of the two remaining pamphlets under review, Professor Masloff's and Professor Pilenco's, little need be said. They both betray so bitter an animus as to force any real seeker after the truth of things in Russia to accept all their statements with extreme reserve.

The first part of Professor Masloff's work, which deals mainly with economic conditions, contributes nothing new, and one is rather annoyed, though also somewhat amused, by the use of such phrases as: " The collective soul of the nation," or the rather confusing statement that " the dim near future of Russia lies concealed in the sphinx-like soul of the Russian peasant." The best chapter of the work is the last, " The Communistic Party," in which, though the author rather tends to " prove too much," there is a clear analysis of the political forces at work in the country.

Professor Pilenco is a student of jurisprudence, and his pamphlet is a lawyer's reply to the note of March 15, 1922, to the Governments of Great Britain, France and Italy, in which Mr. Chicherin seeks to prove that Russia possesses codes of modern law, etc., such as would guarantee the rights of foreigners going to that country.

Professor Pilenco gives a very complete and extremely interesting review and analysis of Soviet legislation, and the pamphlet will be of real value and great interest to any reader who wishes to follow somewhat in detail the astounding experiment of the Soviet in attempting to wipe the slate clean of all laws and to manufacture a new system out of hand, with the bizarre results to which the experiment has led.

One cannot, however, follow Professor Pilenco too far in his conclusions. He apparently loses sight entirely of the fact which must be borne constantly in mind if we would understand the situation in Russia, namely, that " practice and precept " have relatively little in common. During the period of the triumphant advance of communism, decree after decree was issued, mostly abolitions of former existing rights or methods. But these decrees were only on paper, none of them was ever wholly applied, and some of them were scarcely ever applied at all. Practice lagged

far behind legislation in this process of annihilation of the old. Neither in jurisprudence, economics, trade, social relations, nor intellectual activities did Russia ever sink to a point which we would imagine it to have reached if we studied its legislation alone.

The Soviet authorities themselves soon recognised this fatal lag; and for the past two and a half years have been gradually and reluctantly "retreating," bringing their legislation back towards something like accord with practice. In the downward movement practice was far in the rear of legislation; in this return movement upward, it is practice which leads, and legislation follows slowly and resistingly behind. The last word has not been said, as Professor Pilenco seems to imagine it to have been, when he shows conclusively that such and such a law is not on the statute books. In spite of this aspect of the matter, however, the pamphlet must be regarded as a complete refutation of Mr. Chicherin's claims. Professor Pilenco has routed him with his own weapons.

LINCOLN HUTCHINSON

Der Selbstmord eines Volkes. Wirtschaft in Oesterreich. (The suicide of a people. The Austrian social policy.) By SIEGFRIED STRAKOSCH. (Vienna: Rikola publ. 1922. Pp. 124, 8vo.)

WHEN, from 1919 till 1921, Austria was ruled on Socialist methods, this new republic was sometimes called "Little Bolshevikia." The meaning of this *pointe d'esprit* is fully shown in this booklet, written by a man of a peculiar scientific and practical competence. Dr. von Strakosch, long known as qualified by science and by great experience both in agriculture and in industrial business, aims at presenting an exhaustive account of the tragedy of the Austrian people. His statements are so conclusive that they might serve as a text-book. He shows in practice the working of Marxian doctrines in Austria and proves their illusions and their pernicious results.

Never did political *paidokratia* cause more misfortune than in our post-war days. In the case of Austria it has led to fatal failures, creating misery for a whole civilised people, so far as it does not consist of profiteers. Dogmatic politics proved to be a cause of moral dissolution as well as an economic disaster. The cause of this development was the manner in which the peace was concluded. The Treaty of St. Germain contributed most to the attraction of Socialistic promises, which pretended to end

political, economic and social serfdom, and contrasted a sad present with a bright "Future State." But the legislation which followed along Socialistic lines has quickly lessened, even in agriculture, the efficiency of the workmen, who were given welcome privilege, secured by law—short days, sufficient payment, assurance against dismissal, influential works councils and unemployment fees. Further, as a result of a railway strike, practically all workers and employees in Austria secured in 1922 a sliding increase of their wages and salaries, according to the rise of the market prices of common necessities. So their wages could not suffer from the dearness caused by the general depreciation of money —a really unique guarantee of the standard of living and a curious monopoly on the part of the wage-earning and salaried classes. All these measures weakened the efficiency of work—and that of the business men was lessened also, because they were overwhelmed with administrative work of various kinds and with the never-ending worry, engendered by a continual flood of laws and ordinances of all sorts, often intricate, mostly hardly intelligible, and sometimes giving free play to administrative *chicanes*. The capital was constituted as a separate province under a firmly established Socialistic majority. The contempt of economic knowledge as a *bourgeois* superstition, the disintegration of all productive work, hindrances by the multiplication of frontiers, by the difficulties and high costs of transportation, by the high import and export duties of the neighbouring States, by the continuous inflation of their own monies and by the vehement fluctuation of changes, contributed and reacted on each other in their detrimental effects.

The anti-capitalistic legislation has not cured the labour unrest, but has created a growing *malaise* and a dangerous uncertainty in business. The financial disaster of the country and the ruin of its former middle classes are further consequences of the moral and economic dissolution of this much-injured people.

E. SCHWIEDLAND

The International Trade Balance in Theory and Practice. By THEODORE H. BOGGS. (New York: the Macmillan Co. 1922. Pp. viii + 221.)

THIS book consists of two parts: an introductory examination of the "Theory of the Balance of Trade," and an explanation of the causes of excess of exports over imports or imports over exports in the case of the U.S.A., the U.K., Canada, India,

Australasia, and South Africa, together with comments on the foreign exchange situation in general, and, in particular, on the exchange position of these selected areas.

There is no mystery about the "Excess of Imports over Exports" or "Exports over Imports." In a world in which goods and services constitute the objective conditions of material welfare, and in which such goods and services are exchanged between inhabitants of the artificial units called "states," it is quite clear that when the trade statistics reveal an excess in either direction, this must be due to the inadequacy of the statistics, or must be explicable by reference to the fact that goods are being exchanged against (non-recorded) services, or, finally, to the fact that a time gap occurs between the transfer of one portion of the goods exchanged and the transfer of the other portion, all "capital and interest" transactions being explicable in this way. From the purely economic point of view, all that has to be dealt with are masses of goods and streams of services, and all that analysis can do is to explain how and why these goods and services are being transferred.

Unfortunately there is a temptation, to which Prof. Boggs has also fallen a victim, to mix up the causes for the flow with the flow itself, which is largely due to the invention of the phrases "invisible imports" and "invisible exports." He starts quite correctly in showing that the visible excess of imports or of exports does not correspond to any ultimate excess of indebtedness: that interest payments, capital payments, shipping services and the like are terms in an equation which always equates. But he is so far misled by the phrase "invisible debits and credits" as to imply that the visible movement of goods must be *aggregated with* the "invisible" movements of capital, interest and the like. How otherwise can one explain the remark on p. 168, that "it must be recalled that a large part of India's foreign loans enter the country in the form of railway and mill equipment, and as such it is counted in merchandise imports. *Therefore the amount of net capital flowing into India annually is much reduced*" (italics mine)?

In the balance of indebtedness there is no balance to be explained, if all the items are included, but in the balance of indebtedness there are no visible or invisible items at all—there are only sums owing and owed. So in the figures of imports and exports, there are only goods, all of which are visible, or they would not be there. Neither in the one case nor in the other is there the slightest justification for distinguishing

"visible" and "invisible." The result of thinking of the goods as "merchandise" and the capital and interest transactions as figures in a ledger is simply that people imagine that if the movements of capital and interest ceased, the merchandise figures would only be diminished by the current difference between capital and interest, whereas, in fact, not only the excess of imports or exports would alter, but also the absolute amounts of the imports and the exports. If the total imports are £m. 200 (capital imports being £m. 100) and the exports are £m. 150 (interest being £m. 50), to wipe out capital and interest would not only reduce the excess of imports by £m. 50, but would reduce the absolute volume of the imports by £m. 100, and the absolute volume of the exports by £m. 50. Locomotives and steel rails and mill machinery on the one hand, rice and jute on the other, have to be physically transferred, as well as compensated in a balance sheet of capital and interest transactions. To show that the excess of imports over exports equals the difference between capital and interest payments, or that the excess of exports over imports equals the difference between interest and capital payments, does not in the least show, as Prof. Boggs seems to imply in his table on p. 63, that all that is physically transferred is the excess of the invisible transactions, but only shows that that excess is part of what is physically transferred.

Another stumbling-block in the exposition of this subject is the relation of the balance of indebtedness to the processes of financial adjustment. The old phrases "favourable" and "unfavourable" balances of trade carry misleading implications about with them, and so long as they continue to be used, it is almost inevitable that writers will forget that they have shown that the balance of indebtedness must always balance. On p. 177, *e.g.* Prof. Boggs states that "as a result of India's favourable trade balance, there was normally existent abroad a steady demand for remittance to that country." Prof. Boggs has forgotten for the moment the home charges, the payment for shipping services, and the like which are the *cause* of the "favourable trade balance," and which cause a steady demand for remittance *from* that country. On p. 180 the author explains that the total excess of Indian exports of commodities amounted in the aggregate between 1910–14 to £m. 261, and that "this was paid for in a twofold fashion," by the sale, *i.e.*, of £m. 138 of Council Bills and the export to India of £m. 120 of bullion. Since the bullion is included in India's recorded imports, how

can it pay for the *excess* of exports unless "commodities" do not include "treasure," in which case there is no real excess at all? As for the sales of Council Bills, obviously they are only a part of a long series of adjustments by which the Government of India pays money in London to its creditors in London, by paying money in India to Indian creditors of London merchants, who have given it money in London, whilst it raises the funds in India by taxation. (Coining *fresh* rupees reduces balances in London, so that the net position is unaffected.) Such transactions no more prove that India's balance was "favourable" than the fact that one can measure the distance of the earth to the moon proves that the latter is made of green cheese.

The practical side of Prof. Boggs' book also reveals certain defects. In the case of the U.K., the only estimate given of the foreign investments of the country after the end of the war is that of Sir G. Paish, and the later estimate of Dr. C. K. Hobson or the figures of the Dollar Securities Committee are not referred to. No detailed figures are provided as to post-war shipping earnings, though the conclusion that these and commission earnings are higher than in pre-war days is probably right for the years 1919 and 1920, though not for the years of depression following. In working out the Canadian figures, Prof. Boggs assumes that Canada's shipping bill was offset by tourist expenditure in Canada. Surely an attempt at preciser evaluation might have been made. On p. 157 various suggested methods of dealing with the discount on Canadian money in New York are reviewed, and though Prof. Boggs on p. 151 has pointed to the close relation between the discount and the level of prices in the two areas, he says nothing about reducing the Canadian note circulation—surely a much more effective remedy than the mercantilist suggestions quoted, the absurdity of which European experience has sufficiently revealed.

On p. 182 occurs the statement that in India during the war "the ancient practice of hoarding was given an impetus at the time, as a result of a simultaneous expansion in exports and decline in imports. The surplus funds were hoarded away. The natural instinct to do so was doubtless stimulated by the many rumours at the time of political instability and military invasions." It is difficult to follow the logic of these sentences. It is the old suggestion that an excess of exports leads directly to imports of treasure, which are somehow not "imports." And what is the meaning of "surplus funds"? If India was

lending to the British Government, would not that account for increasing exports? And if the exporters were paid out of loans raised by the Indian Government, would a single additional rupee have been needed? An increase in hoarding is a natural consequence of rumours, and still more a consequence of a government selling coin at less than its real market value, but it is a little difficult to link it up with an excess of imports and exports.

In spite of these weaknesses, the book is a useful one, since it gathers together data relating to a wide group of countries, which had not, up to the time of the publication of this volume, been treated together.

T. E. GREGORY

Essays on Indian Economic Problems. By BRIJ NARAIN, M.A. (Lahore. 1922.)

Fiscal Policy in India. By PROFESSOR PRAMATHANATH BANERJEA. (Macmillan & Co. 1922.)

AMONG much that is dark and doubtful in India to-day, a hopeful feature is the increased attention given to the study of Economics, and especially to the branch of the science which deals with fiscal policy. A work by Mr. Brij Narain bearing the same title as his present volume was reviewed in this JOURNAL in September, 1920. He has now republished a number of the essays contained in that volume and added others. His views on protection are in agreement with those of Professor Banerjea. The title of the latter's book is misleading, for it does not deal with the fiscal policy of the Indian Government as a whole, but only with that branch of it which is concerned with tariffs. Even in the Budget estimate of 1920–21 Customs receipts only accounted for 13 per cent. of the total revenues of the Central and Provincial Governments. A rapid review of the past tariff policy of India is contained in three chapters. The remaining three deal with the theoretic basis of free trade and protection, the right tariff policy for India to-day, and imperial preference.

Theoretically a good case can be made out for protection in India. Like England it suffers from a want of balance between agriculture and industry, but in the opposite direction. Three-fourths of a population often redundant is engaged in extracting its subsistence from the land, whose tillage absorbs more hands than can be profitably employed upon it. The result is a standard of living which in many parts is too low, and in the areas, un-

fortunately large, where the crops are precarious, acute distress once or oftener in a decade. It is therefore very desirable that a portion of the population now engaged in agriculture should be transferred to industry. But in a backward country like India, where the chief advantage which the entrepreneur enjoys is the command of cheap labour, and where capital is very shy, it is argued with much force that a greater or less measure of temporary protection is required. Writers on the subject generally assume that rapid industrial development will be a panacea for the woes of India. It will, however, only be a real boon if it results in the growth of an intelligent artisan class receiving good wages, but not if it leads to the herding together of badly paid mill-workers in unhealthy slums, or unduly stimulates the growth of the population.

Regarding some measures classed by Professor Banerjea as protection, such as the provision of technical instruction, and the collection and publication of useful information, there will be no dispute. But some of his proposals as to tariffs seem very doubtful. Not to mention seven articles of minor importance, he would levy protective import duties in the case of cotton, woollen, and silk textiles, iron and steel goods, sugar, glass, paper, leather, rubber, and vegetable oils, and export duties on oil-seeds, hides, and bones.

As regards cotton import duties, one cannot help suspecting that the Indian demand for them is largely the aftermath of the folly of Whitehall in forcing on a reluctant Indian Government a so-called countervailing excise cotton duty at a time when, broadly speaking, the factories in the two countries produced, as to a large extent they still do, different classes of goods. As a matter of fact the Indian mills are in a very strong position. Between 1879 and 1914 the number of spindles increased from 1½ to 6½ millions. Since then the weaving part of the industry has been further developed. Before the war the proportions between imported and indigenous piece goods was as 75 to 25, while in the four years ending 1920–21 the advantage seems to have passed to the latter class. Professor Banerjea admits that 75 per cent. of imported piece goods are non-competitive. Broadly it is only in a part of England's cargoes of "grey unbleached" that there is much competition. A large share of the cloths sent to India consists of "white bleached" and "coloured." In these latter classes the production of the Indian mills is at present quite small, and it is in order to increase it that protection is demanded. But until long-stapled cotton can be

produced on a large scale in India it is doubtful whether the attempt of the Bombay mills to compete deserves special encouragement. As regards yarn the Indian factories have the field to themselves. India supplies all its own requirements and exports more than it imports. A reference to the Bombay share list will convince anyone of the handsome dividends paid by many Indian cotton mills and the extraordinary appreciation of their shares. It seems fantastic to urge that an industry in this exceptionally favourable position requires protection.

Sugar is another doubtful case. Java, where the yield per acre is vastly in excess of that in India, sent in 1921 543,000 tons of sugar to that country. To be successful sugar manufacture requires an extensive area of heavy out-turn within easy distance of a central factory. Those familiar with the land tenures and agriculture of India know how difficult it is to secure these conditions there.

The protection of the paper industry, except at an inordinate cost to the community may have to await the discovery of means of producing an abundant supply of cheap wood pulp in India. A much stronger case can be made for protecting leather goods and vegetable oils. In the case of the latter an import duty on oil and an export duty on oil-seeds are proposed. The export of oil-seeds, which might be crushed at home, deprives Indian cattle, often underfed, of a valuable food. None the less it may be difficult to make Indian farmers willingly acquiesce in anything calculated to restrict liberty of trade in a crop, the export of which in a good year is on a very large scale, and the Tariff Commission condemned the proposal for an export duty.

The fact that in existing Indian conditions protection can be theoretically justified does not prove that, as actually applied by the Government and the Legislatures, it will be useful to the community as a whole. Free trade is Professor Banerjea's goal. As soon as an industry has been set on its legs by protection it is again in its own interests and in that of the community to be brought back into the free air of international competition.

> " Sed revocare gradum, superasque evadere ad auras,
> Hic labor, hoc opus est,"

as the history of tariffs proves. India, however, will certainly try protection. It may be hoped that the Government and the Legislatures with the help of the Tariff Board will exercise in a rigid spirit the "discrimination" recommended by the late commission, and, at first at least, confine protection to a few carefully selected classes of goods. It may be feared that even

a Tariff Board will not save it from the risks above noted. But when the agriculturists are properly represented in the Legislatures, it will be to their interest to oppose the abuse as distinguished from the limited legitimate use of protection.

Both writers are probably right in thinking that a policy of Imperial preference offers no economic advantages to India.

J. M. DOUIE.

The Maintenance of the Agricultural Labour Supply in England and Wales during the War. By J. K. MONTGOMERY. (Rome: International Institute of Agriculture, 1922. Pp. 121. Price 2*s*. 6*d*.)

THIS book, which is a reprint of a report previously published in the *International Review of Agricultural Economics*, is a valuable collection of facts and figures compiled from masses of official sources. It is divided into six chapters—the first dealing with the measures taken to exempt certain classes of agricultural workers from military service, the second with the provision of military labour for agriculture, the third with the labour of prisoners and interned civilians, the fourth with women land-workers, the fifth with various miscellaneous sources of labour supply (*e.g.* Belgian refugees, conscientious objectors and school-boys), and the last with the agricultural minimum wage, "one of the objects of which was to induce the agricultural labourer to stay on the land by ensuring to him wages commensurate with the rising cost of living." Naturally, I have not been able to check the innumerable figures and details which Mr. Montgomery has provided for his readers, but I have seen no reason to doubt their accuracy, and the book gives one an impression of care and exactness. It is not easy reading, for Mr. Montgomery sticks austerely to the facts, and sometimes one cannot help wishing that he had allowed himself more latitude in the way of comment and appreciation of problems. As it is, the book smacks too exclusively of the study; and a considerable effort of imagination is required to picture what all these figures and regulations really meant in the fields and cottages—though I must not forget the welcome touch of realism provided by the attractive photographs of women and boys at work.

Two somewhat important omissions must be mentioned. Though we are told much about the depletion of the ranks of agricultural labour by enlistment and conscription, and of the

measures taken to deal with this problem, practically nothing is said about the drift of agricultural workers, and of lads who would normally have become agricultural workers, to munition works, especially the construction of aerodromes. Again, the employment of schoolboys in holidays, especially for harvesting and flax-pulling, is discussed, but the short-sighted policy of allowing boys to leave the elementary schools for agricultural work before the normal age is not, I think, mentioned at all. And this is a matter on which more information would be welcome. One would like to know how far this evil penetrated, and, if it were possible, to learn something of the subsequent employment history of the lads whose education was sacrificed in this way. Mr. Selley, in his *Village Trade Unions in Two Centuries* (pp. 139–144), tells us a little about this matter, noticing the statement made by the President of the Board of Education in February 1915, that the demand for child labour came from low-wage districts. Mr. Selley quotes the protests made by Dr. Gore and the late Dr. Scott Holland, and ends his discussion of this lamentable phase of the history by quoting the following passage from a circular issued to local educational authorities in France by the Government of that country :—

> "The existing laws on the attendance of boys at school must be maintained this year with more strictness than ever. . . . It would be disgraceful to see children robbed of their education, as if the military service of their fathers had left them only the choice between beggary and premature wage-labour."

Just now, when the French policy in the Ruhr is arousing our indignation, it is well, perhaps, to recall a time when it was not we, but our Allies, that took the more excellent way!

But to return to Mr. Montgomery's book—an illustration of the way it would have gained if its author had shown more knowledge of the *realia* of village life is provided by the statement that in the substitution of low category men for those fit for general service the substitute was to be "if possible a man who was employed with that employer or in the same parish" (p. 11). This is unexplained; but evidently it was connected with the housing shortage and the prevalence of two-bedroomed cottages—factors which, in some districts at least, must have hampered the introduction of strangers.

The most valuable part of the whole book is the last chapter, which is a compendious summary of the various regulations

made for different districts by the Wages Board. An adequate commentary upon that intricate history is obviously impossible to compress within the compass of a review. But two facts strike me in reading Mr. Montgomery's chapter. As the Wages Board gained experience it seems to have found uniformity and simplicity increasingly preferable to the policy of conformity to local customs. This was certainly so as regards the hours for which the minimum wage was payable. In the matter of the half-holiday, too, the original regulation exempted from the overtime rule time spent on the short day by stockmen "in connection with the feeding and cleaning of stock," but "three months later the Board issued an order to vary the definition of overtime by omitting this exception, so that for stockmen also any employment in excess of six and a half hours on the short day was to be treated as overtime" (p. 87). Secondly, it is just where the Board yielded to the temptation to accommodate its regulations to local varieties of custom—namely, in the matter of harvest rates—that we get an irritating labyrinth of rules, which must have puzzled employers and employees alike. I believe that the Board would have done well to leave harvest rates alone. If harvest had been subject to the ordinary minimum and overtime rates, complexity would have been avoided, the labourer would have been sufficiently secured, and employer and employed would have been free to make any terms for harvest that they pleased, provided that these were not less favourable to the latter than the rates in force for other summer work. And these are points which should not be forgotten now that the re-introduction of the minimum wage has been recommended by the Committee on Agriculture. For they bear on the Committee's suggestion that six district committees should take the place of a Central Wages Board, and seem, to me at least, to be an argument in favour of a central board as being more likely to secure simplicity and uniformity and less liable to become needlessly entangled in the intricacies of local customs.

REGINALD LENNARD

Scientific Management and the Engineering Situation. By SIR WILLIAM ASHLEY. Oxford University Press.

SIR WILLIAM ASHLEY has made the subject of industrial organisation so much his own that his choice of a subject for his Sidney Ball Memorial Lecture was very welcome. Within

the narrow limits of the space available he has contrived to give a clear, if summary, account of the aims and characteristic methods of Scientific Management, distinguishing the really scientific element, implied in its treatment of large-scale industrial administration as a problem for objective study, from the collection of dodges for speeding up the wage-earner that figures so largely in its discussions, and bringing out clearly the fallacy involved in Taylor's attempt to base wages on the measurement of output.

He then applies this analysis to the situation in the engineering industry revealed by the lock-out of last year. Scientific Management has no solution to offer for our problems. It aims at accelerating the process of substituting less skilled for more skilled labour, that lay at the bottom of last year's quarrel. This process, however, involves the up-grading of unskilled, as well as the degrading of skilled, labour, and often a change in the character, rather than a lowering in the quality of the labour required. Sir William believes, therefore, that the social problem involved can be solved, if employers will give it the consideration due to it, and will observe, in the spirit as well as the letter, their pledge to consult the workers before making changes.

One wishes that the lecturer had had time to discuss the problem further; in particular to express an opinion on the view that the big difference between English and American industry —of which Scientific Management is only one indication—is due to the fact that the American employer has to organise production on a basis of masses of unskilled, transitory labour, while his English counterpart (except in war-time) can base his organisation on an abundant supply of highly skilled artisans, who move about comparatively little.

The reference to Sidney Ball will interest his friends; and Oxford men who had not the privilege of knowing Ball will be interested to discover that, if Ball had had his way, Sir William Ashley would have done his academic work in Oxford instead of in Harvard and Birmingham.

H. CLAY.

Workmen's Compensation in Great Britain. By JOSEPH L. COHEN, M.A. (Cantab.), F.S.S., sometime "Richard Watson Gilder" Fellow in Economics (Columbia University, U.S.A.). (London: Post Magazine, 1923.)

MR. COHEN is also author of *Insurance against Unemployment*, on which we had the pleasure to express a favourable opinion

two years ago; and of an examination of Insurance by Industry read before the British Association at its Hull meeting last year.

Before 1897 an employer was liable for the consequences of things done or omitted by himself or his agents, and the law in 1880 had extended the liability arising from agency to include injuries to a workman caused by the act or neglect of a fellow-workman under the doctrine of common employment. The Workmen's Compensation Act, 1897, introduced a new principle into English law. It made the employer responsible for injuries to a workman by accident arising out of and in the employment, without question as to things done or left undone by the employer or by any other workman. The sole exception was when the injury arose from the serious and wilful misconduct of the sufferer himself. The effect of this was to import into the contract for employment an implied contract for insurance by the employer against accidents so arising, whether or not he would have had any responsibility for it under the previous law.

The contract for employment being thus combined by statute with a contract for insurance, it soon became evident that it had the feature of uncertainty against which contracts of insurance have to provide, and the employers sought to equalise their risks. For this purpose they entered into contracts of re-insurance with insurance companies. The premium which the employer had to pay to the company was dealt with as one of the expenses of management incidental to the industry. If this plan were universally adopted, the employers' liability would simply increase to that extent those expenses, and would probably give rise in the long run to an increase of the cost to the consumer. If that came to be impracticable, for the consumer has the last word, and can easily avoid payment by dispensing with the thing produced, the wages of the employed persons would have to be reconsidered. In a free market it matters little, and not for long, what the legislature may say as to who is to pay, as the rights of all parties will adjust themselves in time.

Unlike his treatise on Unemployment, Mr. Cohen's present work is a small one, and seeks to deal with a large subject in not more than 232 pages. That his readers may understand how large the subject is, he has furnished a list of the countries which have adopted Workmen's Compensation laws, including nearly every country in Europe, and forty-two of the forty-eight United States of America. He tells us that the fifteen million employed persons who have the benefit of the Act in Great Britain are liable to 400,000 accidents in a year, of which something under one per

cent. are fatal, and that the resulting charge upon the employers is £9,000,000 a year.

One beneficial result of the acceptance of the new principle of insurance into contracts of employment is that it becomes the interest of the employer and of the insurance companies who represent him to diminish, as far as possible, the number of accidents and the liability to compensation which results from them, by doing all they can to prevent accidents. Mr. Cohen describes at length and warmly commends the "Safety First" movement. It seeks to educate the workmen to be careful and the employer to exercise such forethought in the construction and management of his works and the conditions under which the employed carry on their labour, as will minimise the risk of accident. It claims to have been successful in diminishing the number of accidents to a considerable extent in the works of those firms which have joined in it.

The intervention of four years of war has caused some difficulty in measuring statistically the reduction (if any)) that has taken place in the number of accidents. Mr. Cohen gives two tables (pp. 17, 181) in which statements are made for seven groups of trades. So far as can be deduced from these (and they obviously require some correction) the number has not increased; but the successive Acts of Parliament which have added to the benefits of the workmen have considerably increased the cost. The Legislature has entered upon a dangerous course in attempting to regulate wages, and the time cannot now be far distant when it will learn that it is not within its powers to do so. It is strange to see the legislative blunders of the fourteenth century reproduced in the twentieth.

The Employers' Liability Acts have the merit of recognising that there are employers who enter into arrangements with those they employ that are more advantageous to the workman than the benefits desirable by him under the Acts. Where that is proved to the satisfaction of the Registrar of Friendly Societies, contracting out of the Acts is permitted.

Mr. Cohen has some criticisms of the Acts to offer and reforms to advocate. One of them is the establishment of a State Insurance Fund for Workmen's Compensation; but he admits that it has not yet received much public support in Great Britain. We think that recent experience is against it. His work is a handy book, full of useful information, concisely and clearly stated.

E. BRABROOK

The Ministry of Health and the Poor Law. By SIR WILLIAM CHANCE, Bt. (London: King. 1923. 1*s*.)

THIS pamphlet is a comment on the section on the Poor Law in the last report of the Ministry of Health, emphasising all the passages therein which appear to the writer to indicate a return to "sound" principles. Neither the exceptionally large amount of distress just now entirely unconnected with personal fault, nor the recent war service of a large proportion of the present "pauper" population, appears to have modified his faith that the mutual responsibility of the members of our community for each other's support in need was finally defined in 1601 and endorsed in 1834. There is no sign that the writer is aware, as all those intimate with their less fortunate neighbours in industrial districts must be aware, how very much suffering, sickness, and mortality is being prevented at present by relaxation in the old policy of a deterrent Poor Law. This is likely to lessen his influence in counteracting the tendency shown in some areas to undiscriminating lavishness of administration.

ANNE ASHLEY

Kräfte, Ziele und Gestaltungen in der deutschen Industriewirtschaft. (Active forces, aims and forms in modern German industries.) By HERBERT VON BECKERATH, Professor in the University of Tübingen. (Jena: Fischer. 1922. 81 pp. 8vo.)

IN pre-war times there were in Germany a great number of *cartels* and a much smaller number of industrial *concerns*. During the war the necessity of securing the existence of the nation compelled the Government to control private enterprises throughout the country. After the Great War this centralism was maintained, owing to the scarcity of materials, the difficulties of transportation and commerce, and to the lack of means of making payments abroad. Finally, this rigid system proved to be a failure owing to the impossibility of judging from a central office all economic wants and of governing from it a modern industrial and commercial commonwealth in an adequate manner.

So at last private business proved once more to be the most reliable organiser of industrial life. Only business men possess the necessary knowledge and technical skill and can make the heavy effort required to co-ordinate economic forces and to restore broken international relations; and the concerns proved able to achieve this. Cartels are in a position to stabilise economic

conditions, but concerns may, under the direction of open-minded, clever and bold personalities, create the new economic power required. They have indeed attempted and effected the restoration of the private economic life in German industries, in commerce and in banking.

Professor H. v. Beckerath, having set forth this evolution, turns to the examination of three problems, which are a consequence of the actual situation—namely, the questions, whether German business life will always find the highly capable men necessary for running such organisations, and how their economic and social strength might react on the relations between employers and workmen and on foreign policy. In these respects economic problems will surely prove once more to be moral ones. So, much good as well as much evil *per se* are likely to arise from the evolution that is leading Germany towards the development of trusts. But it seems highly probable that in Western civilisation foreign policy will be conducted under the growing influence or even direction of big business men.

E. SCHWIEDLAND

The Continental System: an Economic Interpretation. By ELI F. HECKSHER, Ph.D. Edited by HAROLD WESTERGRAD. (Oxford, 1922.)

THIS volume, issued by the Carnegie Endowment for International Peace, consists of a translation, with emendations and additions, of a *Festschrift*, "written very rapidly during the winter of 1917–18." Dr. Hecksher explains that in that time of semi-blockade facilities for research were limited, and that the subject could not "be treated in a purely objective manner." The subjective element and topical allusions are indeed rather prominent, but the analogies to the World War are suggestively stated in the final section.

The work opens with an interesting survey of the antecedents of the Continental System. We may note here that the French naval historian,[1] de la Roncière, has compared the efforts of Philippe le Bel to isolate England, about the year 1297, with the grandiose scheme of 1806–1812. Philip II of Spain, with more prudence and patience, might have compassed success in 1587–1588; and Louis XIV in 1701–2 had formidable advantages. But in those periods the industries and commerce of nations

[1] *Revue des Questions historiques*, lx.

were not sufficiently interdependent to admit of an economic pressure so drastic as that which Napoleon could apply to the hated islanders after Jena. That he felt confident of success is proved by his re-issue of the "invasion medal" of 1804, with the line of Virgil as legend—

"Et penitus toto divisos orbe Britannos."

The fundamental notion underlying all blockades is that of siege. They are essentially acts of war, and are therefore not to be judged by the axioms which apply to peaceful intercourse. But, as neutrals strive to carry on such intercourse, there arise countless difficulties, which hinder the belligerent Sea Power from applying its siege methods remorselessly, and of which the Land (or besieged) Power will naturally avail himself to the utmost in order to range neutrals on his side. Hence what is fundamentally an act of war is apt to be modified by diplomatic and economic considerations. At bottom it is expediency which decides the conduct of belligerents respecting neutral commerce. Thus, Catherine II of Russia, who founded the Armed Neutrality League of 1780 as a protest against British actions at sea, twice assured our ambassador that it was *une Nullité armée;*[1] and, when the annexation of the Crimea in 1783 gave her control of the Black Sea, she there enforced the maritime regulations, against the practice of which by Great Britain she had formerly protested. Readers of Mr. Page's *Life and Letters* will also remember the complete change of maritime policy of the United States between the years 1916 and 1918. It is therefore unwise to stress the questions of principle involved in the Armed Neutralities of 1780 and 1800, and appealed to by Napoleon in his *rôle* of champion of "Freedom of the Seas." His treatment of the Americans and Portuguese was not that of a modern Grotius.

Dr. Heckshcr shows how pre-mercantilist and mercantilist notions modified siege methods. Thus, the French Convention passed the drastic Navigation Act of September 1793, partly in order to ruin "the isle of shopkeepers," partly in order to stimulate French industries and commerce. Napoleon inherited the belief of the Jacobins that England could be ruined by cutting off her export trade, and that the measures calculated to strangle it would vivify that of France. But it is not quite accurate to state (p. 25) that the British Government led the way in the attacks on neutral commerce. It was the French

[1] *Diaries . . of the Earl of Malmesbury*, II. pp. 355, 359.

Convention which early in January 1793 denounced the commercial treaty of 1786 with England; which, on February 1, unanimously passed a declaration of war against Great Britain and Holland (the latter State being entirely pacific) and which, on March 1, prohibited the entry of British goods. The British measures came by way of retaliation. They were, of course, stringent; for the French aggression on our Ally, Holland, imparted to the struggle a commercial character; and our Allies in the First Coalition expected us to exert on France the maritime pressure which had been so effective in previous wars. Hence the commercial stipulations in the Anglo-Russian treaty of March 25, 1793, and in the ensuing treaties with our other Allies, the commercial clauses of which show that the prohibiting of neutral commerce with France was as much a Coalition as a British measure.

Again, after the rupture of the Peace of Amiens in May 1803, the first important decisions taken were, Napoleon's insistence that the Dutch must side with him, and his orders for the occupation of Hanover by French troops. Before the end of the month Mortier's columns were in Osnabruck; on June 14 they seized the port of Cuxhaven (belonging to Hamburg), and by the conventions of June 3 and July 5 Hanover was treated as conquered territory, though King George (*quâ* Elector) had declared his neutrality. The French Revolutionists had respected that neutrality after the Peace of Basle (April 1795); but Napoleon brushed aside all scruples, his aim being to control the mouths of the Elbe, Weser and Ems. He had declared that step to be necessary in his very important letter of February 23, 1798 (not cited here), in which he sketched the outline of an economic war with England. Dr. Heckshcr's treatment of this episode on pp. 81–2 is unsatisfactory. He first mentions the British measures of June 28 and July 26, establishing a blockade of that coast, and afterwards, without giving dates, refers to the French occupation of Hanover and Cuxhaven. True, he states that the former of the two British measures was a reply to it; but his narrative leaves the impression that at this point Great Britain was the aggressor, whereas it is clear that her blockade measures were a retort to Mortier's actions which de-neutralised both Hanover and Hamburg.

Dr. Heckscher admits (p. 106) that, in the first years of the Napoleonic War, Great Britain interfered little with neutral shipping. The results of her lenity were soon exposed in *The Frauds of the Neutral Flags*, finished by Sir James Stephen just

three days before Trafalgar. Great Britain's fleets were winning the war; but the fruits of victory were being filched by the fleets of "neutral" merchantmen. The facts and figures here given (p. 103) show the large share taken by American merchantmen in this unfair traffic. Hence the Orders in Council of January–December 1807 which formed a retort both to Napoleon's measures and to the devices of fraudulent neutrals.

The most interesting and important parts of this volume are those which treat of the influence of mercantilist ideas on the policy of both antagonists. Miss Cunningham, in her monograph, *British Credit in the Last Napoleonic War*, had demonstrated the Emperor's belief that by cutting off British exports he would ruin our credit and force a surrender. Dr. Hecksher amplifies this argument and criticises Mahan for not assigning enough importance to it. On British policy, however, the mercantilist theory seems to have exerted little influence in 1803–6, in fact, not until Perceval became Chancellor of the Exchequer in March 1807. But it is surely an exaggeration to assert (p. 126) that the British Orders in Council of November 1807 were, equally with Napoleon's second Milan Decree (December 17, 1807), designed to destroy neutral commerce. The Orders, though obscure in form and irritating in effect, did not deliberately aim at crushing neutral commerce. They were somewhat clumsy safeguards against the frauds of neutrals and Napoleon's system of European blockade; and (apart from our indefensible action against Denmark in the summer of 1807) the British Government was guilty of no actions comparable with Napoleon's reiterated orders to seize all vessels coming from the United States after their Embargo Act of December 22, 1807.[1]

Unfortunately, this volume throws no new light on the most important event of all, the defection of Russia in and after December, 1810, which still awaits thorough examination. In the treatment of the crisis in England in 1810–12 more importance should be assigned to the Industrial Revolution as enabling her to undersell competitors, and thereby recover from the temporary collapse of 1811. Continental manufacturers after 1807 were hampered by shortage of raw materials, but probably just as much by faulty methods. Mollien shows that French textile factories were more ornate but less efficient than those of England, and the machines, "mostly erected by wandering

[1] See *Correspondance de Napoléon*, Nos. 13753, 13764, 13810, 13843, 13992, 14123, etc.

English mechanics," were often imperfect.[1] This goes far to explain the severe crisis of 1811–12 in France (which Napoleon met by doles), and the utter collapse in 1814, which also befell the iron industry and for similar reasons. The contrast with the sound and buoyant industries of Great Britain is well pointed in Part IV. ch. iv.

Dr. Hecksher criticises my statement (*Napoleonic Studies*, p. 218) that Napoleon allowed corn to go from France and Italy to England in time of scarcity for the purpose of weakening her financially. But his letters of July 28, 1809, July 16, 1810, and August 6, 1810, allowing exports of corn to England, warrant such an inference. His licence system was designed privately to facilitate exports, even to England, which would benefit French industry and finance. On May 29, 1810. he even proposed to make use of Dunkirk smugglers; for "my aim is to favour the export of French products and the import of foreign coin." In that year (when English wheat averaged 103 shillings the quarter) his permission to export corn to England probably rested on the assumption that that step would accentuate the already sharp drop in our exchange and bring about a financial collapse.

J. HOLLAND ROSE

History of the Later Roman Empire from the Death of Theodosius to the Death of Justinian, A.D. 395 *to* 565. By J. B. BURY, Regius Professor of Modern History in the University of Cambridge. (Macmillan and Co., 1923. Vol. I., pp. xxv+471; Vol. II., pp. ix+494.)

THE economic and financial history of the Eastern Roman Empire has been so insufficiently investigated, that a few years ago Professor Lujo Brentano wrote a little essay in order to show the interest and importance of the subject.[2] But he, too, recognised its difficulties and the gap remained unfilled. Professor Bury now gives to zealots of economic history the elements of filling it as far as the fourth and fifth centuries are concerned. He sums up in a masterly fashion nearly everything we know about economic life, finance, commerce and population in the days of Arcadius, Anastasius and Justinian, and he adds to the information he gives a full bibliography which helps to develop and complete his information. The reader will do well not to limit himself

[1] Mollien, *Mémoires*, III. 290-2 (edit. of 1845).
[2] *Die byzantinische Volkswirtschaft*, a reprint from Schmoller's *Jahrbuch*, 41 Jahrgang, 1917.

to the chapters specially devoted to economics, such as: finance, compulsory social organisation, the financial policy of Anastasius (Vol. I.), commerce, Justinian's administrative reforms (Vol. II.);—for financial and economic information is scattered all through the two volumes, and even in more places than the otherwise full index of Vol. II. would indicate. As for the rest, it suffices to say that the work is fully up to what is expected from perhaps the foremost byzantinologist of the day, and the reviewer has been not a little gratified to find that Professor Bury endorses his conjectures as to the Byzantine budget and the population of Constantinople.

A. ANDRÉADÈS

Grundzüge der Ökonomischen Theorie. By EMIL LEDERER. (Tübingen: J. C. B. Mohr. 1922. Pp. 184.)

THE object of this work is to provide University students and "interested laymen" with an objective exposition of what may be regarded as the accepted conclusions of economic theory. The author, who is a Professor at Heidelberg and editor of the *Archiv für Sozialwissenschaft und Sozialpolik*, seeks, not to explode the older doctrines, but to discover the latent wisdom which prevails in them. He extracts the essence of the economic controversies of the past. The general point of view is that taken by Dr. Schumpeter in his *Dogmen- und Methodengeschichte.* The fundamental principles of economics are so presented as to show that the conflicting theorists who have contributed to their elucidation are nearer to one another than they seem to imagine.

Professor Lederer's work shows the influence of a tradition in the academic teaching of economics, which still devotes considerable attention to the theoretical contribution made by Karl Marx. For instance, Marx's attempt to reconcile the theory of Surplus Value with the actual tendency of profits (no matter what the organic composition of the capital) to be adjusted to a common rate of profit, is expounded at great length and defended against the dialectics of Böhm-Bawerk. In all no less than a third of this introduction to economic theory is assigned to an examination of the Labour theory of Value. The whole book is marked by strong Socialist feeling. Professor Lederer is careful to insist that his exposition assumes the existence of the Capitalist system, to which alone it applies. A characteristic of this system, to which Professor Lederer several times draws the attention of the students and the "interested laymen," is the power possessed by the few, in whose hands is concentrated the ownership of

the instruments of production, to extort labour from the many, whose economic slavery is in marked contrast to their legal liberty.

Professor Lederer returns to this characteristic of the Capitalist system in his presentation of the marginal utility theory of Value. How can we reconcile with this theory of value the fact that the price of the final products contains, not only the "costs" of the factors, which have contributed to their production, but —and this is essential to the existence of the Capitalist system— a "surplus" as well? A differential surplus can, of course, be obtained from new and more skilful combinations of the factors of production, but this is not enough for Professor Lederer. The surplus obtained by the entrepreneur (under the régime of unrestricted competition) is ultimately due to his being in a position to take advantage of the recurrent overcrowding of the labour market and the consequent competition of the workers to sell their labour power—their only hope, under the Capitalist system, of obtaining the means of subsistence.

There are many small matters to which criticism might be directed, yet there is something not usually found in the ordinary introduction to Economics, in the carefully elaborated picture which Professor Lederer's work exhibits, drawn, somewhat austerely perhaps, but yet in clear and bold lines.

J. LEMBERGER

NOTES AND MEMORANDA

PROFESSOR BOWLEY ON INDEX-NUMBERS

PROFESSOR BOWLEY'S review of my *Making of Index-Numbers* in the March number of this JOURNAL impels me to offer a few comments on those passages which seem to be adverse to my conclusions.

In the first place, I take this opportunity to confess to the error he points out in computing the "upward bias" of the Statist index-number. The true figure is, as he states, 7½ per cent. The correction had, in fact, already been made by me in my article in the *Statist* of April 7, where I explained how the error came about.

I wish further to admit that the identity between the aggregative index-number and the arithmetic index-number with base year weighting "might advantageously have been given greater prominence" in my book, "since it has been commonly supposed that the method of aggregates has some peculiar merit."

But, in view of his perception of this identity, it is a little puzzling to find Professor Bowley apparently losing sight of it in his review. At any rate, he expresses no approval of the fact that "M. March's distinction between an 'index monétaire,' which measures such changes in the value of the unit of currency as may be produced by inflation, and an 'index budgétaire,' which measures the change in the cost of an aggregate of goods, is rejected" by me.

Aside from the two points above noted, none of Professor Bowley's adverse criticisms seem to me well founded.

He devotes considerable space to a discussion of the Median; but none of his comments seem to invalidate the conclusions, many of them tentative, on that subject reached in my book. I am quite ready, on due evidence, to modify those conclusions, just as I had already modified the conclusions on the same subject reached earlier in my "Purchasing Power of Money."

On this subject Professor Bowley says: "Professor Fisher does not seem to be aware . . . that when some of the observations are abnormally dispersed it [the Median] is less liable than other measurements to chance disturbance." He has evidently overlooked my statement substantially to this effect on p. 262.

He also calls attention to a conclusion of Professor Edgeworth that the probable error of the Median is 5/4 of that of the Arithmetic Mean. I have looked up his reference to Professor Edgeworth's reasoning on this subject in the *Philosophical Magazine.* If Professor Bowley means to use that reasoning to bolster up the Arithmetic Index-Number, he is making a mistaken application. An index-number differs from an average of target hits or surveyor's measurements in several respects, but especially in that each price relative averaged is a ratio of two magnitudes which, therefore, may be compared in either of two directions. It is owing to this fact (that each magnitude entering in the average is a double-ended affair) that the arithmetic method of averaging, unlike the Median, tends to "bias." The 5/4 comparison for the probable error of these two averages is irrespective of this bias (as well as based on a system of weighting quite unrelated to that used in the comparisons in my book to which Professor Bowley is here referring).

But this whole subject of the Median is of little importance; for, with the advent of calculating machines, the one boast of the Median, quickness of calculation, has disappeared. The new index-number of 200 wholesale prices which I now publish weekly in the press is calculated (by the method indicated on p. 346 of my book) in less than a tenth of the time which would be required for the Median, and is far more accurate.

Professor Bowley states that prices and quantities are, in general, negatively correlated. In this, I think, he is mistaken; and he is certainly mistaken in ascribing the same opinion to me: "Professor Fisher alludes to this relationship on p. 410." But I am there alluding to a particular case (of agricultural crops), and on the next page I endeavour to show that the relationship is *not* general, that, while variations of *supply* make for the negative correlation, variations of demand work in the opposite direction.

This conclusion—namely, that prices and quantities cannot, in general, be presumed to be correlated in one direction rather than the other, so as to create bias (in Laspeyre's or Paasche's formulæ)—is not simply dependent on *a priori* considerations, but is confirmed by positive data. Nor are these data confined, as Professor Bowley seems to think, to the 36 commodities considered throughout my book. The same absence or smallness of any such bias was found for the prices of 90 raw materials plotted on p. 232, and for the prices in the stock market plotted on p. 234. The bias was small even for Persons' twelve crops

on pp. 236 and 238, despite the existence, in the latter case, of a negative correlation of 88 per cent.

But my chief disappointment in Professor Bowley's review was that he seems to miss the main point of my study. I never claimed that the " ideal " index-number is actually correct within one part in 1000. After admitting that the ideal formula is, under certain circumstances, " a very good method," Professor Bowley says : " Professor Fisher's claim, however, that it measures the quantity required correctly to one part in 1000 cannot be seriously sustained."

What I do claim to have demonstrated is something quite different, namely, that the " *instrumental* " error, *i. e.* that part of the total error which may be ascribed to any inaccuracy in the mathematical formula used, is, in the case of the ideal formula (and, in fact, in the case of a score of other formulæ as well), usually less than one part in 1000. The instrumental error, in the case of the Statist Index-Number using the simple arithmetic, is, in bias alone, at least the 7½ per cent. above cited, while that of Palgrave's formula applied to Swedish prices reaches 28 per cent. Just as some guns have a twist which tends to throw the shot to the right, and others an opposite twist, while still others are made capable of shooting straight, so index-numbers differ analogously. But, just as the best gun ever made will shoot wide of the mark if wrongly aimed, so index-numbers are subject to other errors than those inherent in the formula or instrument used.

Whether or not Professor Bowley did miss this, my main point, his statements concerning it are certainly calculated to give the reader that impression. If, on the other hand, he did understand that my claim was limited to the instrumental error and yet contests that claim, he gives no good reason for his rejection. The almost absolute agreement of such widely distinct formulæ as 5323 and 353 (p. 223), under the extreme conditions of dispersion of the commodities considered, to my mind, proves my claim conclusively. It is quite possible, however, that I have not myself understood the workings of Professor Bowley's mind.

Professor Bowley seems to cling to the common idea that one sort of index-number formula is suitable for one purpose and another for another purpose.

Of course, the purpose affects the choice of the data to go into the formula. But the friendly challenge I issued two years ago to bring forward any clear case where the ideal formula is contraindicated as a correct measure of the average of the relatives

concerned has never been met. Professor Bowley comes the nearest of anyone to meeting it when he says : " The quantities in the first period may be normal (as in the year 1913), in the second, abnormal (as in the year 1918); the symmetry is broken *a priori*. In comparing 1913 and 1918, the forward method may be more appropriate than the backward." But a little reflection will show that a year is " normal " only relatively to a number of other years. Doubtless 1913 is a better common base than 1918 for a series of years when it is not worth while to compare each year directly with every other. But this is not the question here at issue. That question is one of comparing 1913 with 1918 only. Surely the " abnormalities " of 1918 are as legitimately to be reckoned with in any 1913-18 comparison as the " normalities " of 1913.

Professor Bowley cites another ingenious case of alleged asymmetry : " In considering the relative cost of living in England and France, from the point of view of an Englishman proposing to emigrate," the Englishman's budget, not the Frenchman's, should be used. Most certainly. But an ideal measure would take account equally of the Englishman's budget *in England* and the same Englishman's budget *in France*. The ideal formula is still to be employed, but applied to the two budgets of the Englishman, one before emigrating to France and the other after.

Even Professor Bowley, in spite of his ingenuity in trying to find asymmetrical cases, only goes so far as to express doubt. " It is a question, however, whether the [time reversal] test is universally valid."

As to the factor reversal test he is apparently still more dubious, but he again fails to supply a case. The test does *not* exclude the use of " feeding-values." In fact such index-numbers of food rations arranged with regard to calorific content as that of Raymond Pearl in the United States during the war are simple cases of indexes " budgétaires " where Laspeyre's, Paasche's and the ideal formula coincide.

If Professor Bowley has an instance actually used or usable which falls outside the scope of my book, I should be grateful to know of it. His case of measuring the average changes in the height, breadth and area of book pages is essentially my case of visiting cards, on p. 381, which, it seems to me, is very obviously an appropriate case for the use of the factor reversal test.

However, from a practical point of view, as I have shown in the book, in the case of weighted index-numbers, conformity to the time reversal test alone is sufficient to insure substantial

accuracy; in fact, in general, except for simple index-numbers, perfect conformity to either test involves almost perfect conformity to the other. Consequently, Professor Bowley's somewhat grudging admission as to the time reversal test—"it has long been recognised that some mean between the two [index-numbers involved in reversing the time] should be taken"—carries him a long way towards admitting all of my main conclusions. If his insistence that "of the eleven index-numbers classed [by me] as 'superlative' (p. 247), only five satisfy both tests (p. 219)" measures the seriousness of his doubts about the factor reversal test, there is not much left to quarrel about. For instance, Formula 1153, which satisfies the time reversal test, but not the factor reversal test, gives for 1917 as the index-number of prices 161·70, while the same formula gives, as the index-number of quantities, 118·86. The product of these two factors fails to yield the true value ratio, 192·23, as required by the factor reversal test. Instead of this 192·23, their product is 192·19, a discrepancy of one-fifth of one per cent.! The greatest discrepancy of any of the six formulæ here cited by Professor Bowley amounts to one per cent.

As to the real scope and limitations of the conclusions of my book, I have tried to indicate them on p. 381. It is there shown that the conclusions do not apply perfectly to index-numbers of certain anthropometric measurements, for instance. In Appendix III, I have indicated also that a good average of ratios need not agree with a good ratio of averages, and have developed this distinction in two recent letters to the *Statist*, March 31 and April 7.

But such broad limitations are quite different from the vague ideas current that somehow an arithmetic mean, say, is suitable for one index-number of prices while a geometric or aggregative is suitable for some other.

In order to get out of index-numbers all there is in them, we must discard such biased formulæ as those used by the *Statist* and *Economist*, as the Board of Trade has done. We shall still have plenty of errors and perplexities, but they will not be matters of formulæ.

It may well be that the scope of index-numbers covered by my book may be revised or better mapped out. But the fact remains that my challenge has not yet been met. It is true that many, like Professor Bowley, have suggested bizarre and outlandish fields yet uncovered. One critic would have had me explore the virtues of weighting by $\sqrt{pq^2}$ or $\sqrt{q^2(1+p^2)}$!

But no one has yet come forward with a reasonable and prac-

tical index-number which could clearly be shown to lie outside the scope covered by the two reversal tests (excepting the widely different fields above mentioned and indicated in my book itself).

While thanking Professor Bowley personally both for his favourable expressions and for his criticisms, I confess to a regret that he seems to hesitate to throw his strong influence whole-heartedly in the direction of what might be called index-number reform, so much needed to-day in the interests of statistical science. This would seem especially appropriate, as the " ideal " index-number which has been associated with my name should, as shown in my book, be more properly associated with his.

IRVING FISHER.

Yale University.

Professor Bowley writes with reference to the above:

I regret that I had forgotten Professor Fisher's discussion on the influence of extreme aberrations on the median. I think that he hardly yet admits that the median of a sample of any ordinary frequency group is subject to little more error of sampling than is the arithmetic average. In fact he appears to reject any connection of index-numbers with the theory of sampling.

We should expect to find a negative correlation between changes in price and in consumption, at least in short periods, because when a commodity becomes relatively scarce its price rises. Where this is the case Paasche's formula would give a lower reading than Laspeyres'. The difference is likely to be greater in the case of retail than of wholesale index-numbers; in my *Elements*, p. 210, a case is given where Paasche's index is 202 and Laspeyres' is 212.

In the prefatory note by Mr. W. T. Foster, p. viii, it is implied that a means of measurement for determining contracts, etc., on the basis of index-numbers correct to one part in 800 has been found. Professor Fisher himself confines the statement to the " instrumental " error, but all he shows is that in one case a number of formulæ agree within this margin, and this in itself does not prove that any of them are correct. It is also important that a formula should neutralise errors in the weighting, and that it should represent adequately the particular phenomenon to be measured; I now realise that Professor Fisher does not imply that equal accuracy is necessarily obtained in this respect.

My point about the factor-reversal test was that it had no theoretical justification; for this it is irrelevant to say that in fact index-numbers held to be good on other grounds satisfy it.

On the question whether the best formula for an index-number varies according to its purpose, it may be said that if one is measuring the influence of currency changes it can at least be argued that weighting is not relevant, and that Jevons was right in taking the unweighted geometric mean of the price-ratios; while the "Ideal Index" may be the best for measuring the practical effect of price-changes. To other purposes for which index-numbers are used quite different formulae may be appropriate; for instance, the change in average wages is expressed by $(\Sigma n_1 wr \times \Sigma n) \div (\Sigma nw \times \Sigma n_1)$, where r (the relative change in the wages of a group) is often known accurately, and the principle of permissible roughness in weights is used for the rougher estimates of w (initial wage) and n n_1 (the numbers employed at the two dates).

Though I do not claim to be the first inventor of the "Ideal Number," since it may have been used before 1899, I fully agree that it satisfies the necessary conditions of price measurement when weighting is proper to the problem. The trouble is that we only infrequently have the data for double weighting, and it is therefore important to examine carefully the criticisms and tests applied to formulæ in actual use. A. L. B.

The Economic Situation in Japan

I. General Remarks

The world war brought about drastic changes in the finance and economy of Japan. Before the war broke out she was struggling to discharge her ever-increasing external debts caused by heavy borrowings and a continuous excess of imports, phenomena inevitable, perhaps, for a new and enterprising nation. The war turned the tide in the opposite direction, causing an excess of exports. Not only was a considerable amount of her foreign liabilities paid off, but Japanese money was loaned to the countries which were formerly her creditors. A sudden boom visited every line of business; expansion and improvement were seen in every direction. It was during these days that the so-called *narikin* (*nouveaux riches*) made their appearance, and over-trading and over-speculation brought forth a reaction in due course.

As the result of such mistaken policies, the country is now suffering from high cost of production, unfavourable balance of trade, increase of unemployment and other symptoms regrettable from the economic and social standpoint. The harm done does

not stop at the material losses; and unemployment and the difficulty of earning a livelihood are telling hard upon the mentality of the working class especially. Balancing the gain and loss reaped by Japan through the war, it is doubtful whether the material gain is substantial enough to cover the immaterial losses.

II. Finance

The Budget estimate for the current fiscal year (April 1923-March 1924) cannot yet be definitely stated. According to the preliminary estimates, the expenditure and revenue are to balance somewhere about 1,350,000,000 yen, the former being 173,000,000 yen less than in the preceding fiscal year. As for the revenue, the profession taxes and the stamp duty are to be reduced, while the kerosene oil tax is to be repealed, causing a reduction of about 20,000,000 yen in revenue. The reform in income tax is to increase the receipts by 6,000,000 yen. The big items of new expenditure are—

42,000,000 yen for debt redemption fund,
9,000,000 ,, for irrigation subsidy,
30,000,000 ,, for general education subsidy.

Of recent years the National Debt has been increasing; but it seems to be the intention of the present Government to avoid by all means the undue increase of debt, and the limit of issue for the coming year is fixed at 160,000,000 yen.

On the other side the necessity of more drastic curtailment, especially of army and navy expenditure, is publicly discussed, so as to release the surplus for a further lightening of the burden of taxation and for social improvements.

Local taxation has steadily increased of late, and the burden is becoming almost unbearable. In consequence, the cry of reforming the local finance simultaneously with the national is growing louder.

III. Currency and Prices

Year.	Month.	Note Circulation: yen.	Price Index for Tokyo.
1914	Dec.	385,000,000	119[1]
1915	,,	430,000,000	141
1916	,,	601,000,000	172
1917	,,	831,000,000	216
1918	,,	1,144,000,000	277
1919	,,	1,555,000,000	381
1920	,,	1,439,000,000	271
1921	,,	1,546,000,000	276

[1] The index for 1900 fixed at 100.

As the Government is empowered to issue gold and subsidiary coins, and as the colonial banks, such as the Banks of Korea and Formosa, are authorised to issue notes besides the Bank of Japan, the total circulation cannot be accurately judged by considering solely that of the central bank. Yet as the main bulk of the circulation is covered by the notes of the Bank of Japan, the general aspect can be surveyed by the figures given above.

Views are widely divided on the point whether the increase of the note circulation is the cause or effect of high prices. Inflationists naturally assign the increase of the note issue to the expansion of business, and try to take away the responsibility of higher prices from the note issue, laying more stress on lessened production and increased consumption. Those who take the opposite view urge the necessity of decreasing the note issue by all possible means. Both parties, however, agree upon the need of less expenditure both by the Government and by the public, especially for unproductive purposes. The need is more keenly felt in the face of the strikingly high prices still prevailing in Japan compared with elsewhere.

IV. Labour and Wages

As the rise of wages did not keep pace with that of the prices, the working classes and other people living on fixed incomes had to suffer. It is true that the following average index-numbers of wages in Tokyo for forty kinds of labour show a substantial rise:

June 1914	100	Dec. 1917	151·10
Dec. 1914	106·31	„ 1918	185·34
„ 1915	108·43	„ 1919	292·37
„ 1916	120·07	„ 1920	288·08

However, when compared with the price index of the preceding table, the discrepancy is easily discernible. No wonder then that demands for increased wages sprang up in many industries, and the failure to secure satisfactory settlements ended in strikes and lock-outs, much more frequently in the boom, decreasing with the approach of the reaction.

As regards labour problems generally, there is much room for improvement. According to the latest calculation there are over 1,500,000 hands (of which 854,000 are females) employed, exclusive of factories of which the employees are less than ten. As small factories far outnumber the larger, and domestic industry

still plays an important part, the inclusion of smaller firms would swell the total enormously. Regardless of this situation, trade unions and other combinations of labour are not legally recognised, and as a consequence labour problems in Japan tend not to be discussed in a public way and to be driven further and further from Parliamentary methods. As a proof of this tendency, the case of the Yuai-Kai (Friendly Association) may be mentioned. It was the only institution of the kind, and was at first merely a small gathering of labourers. But gradually it grew in numbers, and was followed by similar bodies, until at last the number rose to 273 associations with 110,688 members, in July 1921. The objects and aspirations of its founders were limited to the general welfare and mutual aid of the associates. But as it grew in membership and influence, its sphere of action was extended and showed activity in looking after the interests of those both in and out of the association, especially in the case of strikes, and other combinations against capitalists. The change did not stop here, influence being gradually assumed by new bodies whose objects were of a more radical and extreme character. Bad times, unemployment, and especially the difficulty of earning a livelihood as the result of high prices, are making things worse, and even the secret hand of Bolshevism is reported to be spreading across the narrow sea which separates Japan from Siberia. Alarmed by such a state of things and stirred by the necessity of affording proper treatment to labour organisations, the attitude of the Government is expected to incline towards more liberal and enlightened views, for which the author has been working hard for nearly thirty years. There is a rumour circulated that the Factory Act, which is far from being complete, is to be improved, extending its sphere of application (at present limited to those employing more than fifteen hands), shortening the hour for juveniles, placing limitation on night work of juvenile and female workers, etc. Also the Trade Union Act is said to be under contemplation for presentation to the Diet. If these rumours become a reality, it will mark an epoch in the social legislation of Japan.

V. Trade and Shipping

The excess of exports over imports rose to an enormous amount after the outbreak of the war, in contrast to the continuous unfavourable balance in preceding years, till the tide was reversed after the return of peace. Let the following figures prove the change.

Year.	Exports.	Imports.	Excess of Exports or Imports (—).
	Y.	Y.	Y.
1910	458,428,996	464,233,808	— 5,804,812
1911	447,433,888	513,805,705	— 66,371,817
1912	526,981,842	618,992,277	— 92,010,435
1913	632,460,213	729,431,644	— 96,971,431
1914	591,101,461	595,735,725	— 4,634,264
1915	708,306,997	532,449,938	175,857,059
1916	1,127,468,118	756,427,910	371,040,208
1917	1,603,005,048	1,035,811,107	567,193,941
1918	1,962,100,668	1,668,143,833	293,956,835
1919	2,098,872,617	2,173,459,880	— 74,587,263
1920	1,948,394,611	2,336,174,781	— 387,780,170
1921	1,252,837,715	1,614,154,832	— 361,317,117
1922 (up to Oct.)	1,478,202,000	1,745,728,000	— 267,526,000

If it were not for the big export of silk, the balance would have been far more unfavourable, the exportation of silk ranging between 600,000,000 and 400,000,000 yen during 1919 and 1921. The effect of the change in the foreign trade was felt most heavily by shipping. The tonnage of our shipping rose from 1,577,000 in 1914 to 3,168,000 in 1921, and big profits were reaped by shipping companies. But at present most of them are placed under difficulties as the result of lesser traffic and greater external competition.

VI. Industry

Industrial expansion since 1914 has been far more striking than in the case of trade. Commercial goods hitherto supplied by Europe and America were to be made at home in conjunction to the extra brisk demand from the external market. Hence the sudden increase of factories and hands employed in them.

Factories and Employees

Year.	Factories.	Workers.		Total.
		Regular.	*Casual.*	
1914	17,062	853,964	57,489	911,453
1915	16,809	910,799	50,851	961,650
1916	19,299	1,095,301	62,239	1,157,540
1917	20,966	1,280,964	75,551	1,356,515
1918	22,391	1,409,196	95,565	1,504,761
1919	23,831	1,390,942	83,339	1,474,281

Profits reaped by industrial corporations were beyond imagination, and some were able annually to pay over 80 per cent. dividend, resulting in an exorbitant rise in the prices of their shares. Workers were attracted with the promise of higher wages and better treatment from other factories. Even then the demand for labour not being satisfied to the full extent, fresh hands were drawn from rural districts. It was indeed a high time for those connected with industrial undertakings.

But with the turn of the tide, conspicuously from the early part of 1919 onwards, the whole aspect was altered, leading to the shrinkage of business for the more favourably situated, and a total collapse for those placed unfavourably. For instance, the amount of capital for fresh enterprises, which rose at one time to 3,700,000,000 yen, fell to 1,300,000 yen in 1922, and the capital of companies wound up was over 800,000,000 yen in 1921, and might reach to the same amount in 1922. In such a state of things it is natural that the number of unemployed should increase; and of those discharged, some changed their vocation and many were driven back to rural districts. Still the problem of unemployment is far from being completely solved, and the suffering is most keenly felt among workers in shipbuilding as the result of the sudden depression in shipping business and of the discharge of hands from the Naval yards, necessitated by the Naval limitation settled at the Washington Conference, which Japan is determined to carry out faithfully, whatever the attitude of other nations may be.

VII. Agriculture

The effect of the war was somewhat slight on agriculture, when compared with that of trade and industry. Of course the general buoyancy did not leave agriculturalists untouched, and especially the rise in the price of rice benefited them. But it must be remembered that this benefit faded away before the rise of price of every other commodity used by them, as well as through higher wages to be paid to agricultural labourers, who in places near industrial centres were desperately difficult to secure, as they were attracted to factories, by better wages and shorter hours of work. Moreover, the relation of landlord and tenant is not what it used to be. The two parties had been united for ages not on pure business principles, but by traditional ties of custom and harmonious spirit; the rent, for instance, being fixed by an equal sharing of the crop between the landowner and the tiller of the soil. As industry and commerce made

progress, lands fell into the hands of absentees, and came to be let out by competition. Tenants themselves were impressed with the advantage of making claims by combined force, following the example placed before them by factory workers in strikes and walk-outs. In some districts, as the result of the conflict of the two factors, land is lying idle, and the matter is assuming a most serious aspect, not only for the agrarian population but for the nation at large, as Japan is already suffering severely from the shortage of food supply. With a view to remedying matters, there is talk of passing a law on tenancy. But whether the problem could be solved by mere legislative means seems rather doubtful.

VIII. Population

The fundamental problem which faces Japan is the steady and rapid increase of her population, while her total area is so limited, as is shown below, and her own food supply does not keep pace with the increase of population.

Population for October 1920

	Male.	Female.	Total.	per 1 sq. *ri*.	Male per 100 females.
Whole Empire	38,922,437	38,083,073	77,007,423	1,750·9	102·2
Japan	28,042,995	27,918,145	55,963,053 [1]	2,238·8	100·4
Formosa ...	1,894,141	1,760,257	3,654,398	1,566·9	107·6
Saghalien ...	62,241	43,524	105,765	45·2	143·0
Korea	8,923,060	8,361,147	17,284,207	1,207·6	106·7

Those living abroad are a little over 600,000. One *ri* = 2·4403 miles.

[1] Estimate for 1922 of Japan, 57,656,000.

Rice being the chief food, in case of failure of the crops, Japan must import a big amount (in 1918 over one-tenth of the home supply) from abroad. Not only for her food, but for cotton, wool, timber and other articles of daily necessity she must rely on external supply. Remedial steps such as emigration are denied to her on almost every side, artificial restriction on birth is beset with difficulties and harm, and of course territorial expansion is inadmissible, as she means to be faithful to her pledge of non-aggression and international peace. The only means left is, therefore, to support her population by further extension of manufacturing industry, in other words, by exporting

Increase in Population and Output of Principal Foodstuffs (Japan Proper)

Rice

Year.	Population.	Area under Cultivation.	Output. Total.	Output. Per Capita.	Change since 1909. Population.	Change since 1909. Area under Cultivation.	Change since 1909. Output. Total.	Change since 1909. Output. Per Capita.
		Cho.	*Koku.*	*Koku.*		*Cho.*	*Koku.*	*Koku.*
1909	50,011,700	2,938,074	52,437,662	1·05	100	100	100	100
1910	50,716,600	2,949,440	46,633,376	·92	101	100	89	87
1911	51,435,400	2,973,009	51,712,433	1·01	103	101	99	96
1912	52,167,000	3,003,053	50,222,509	·96	104	102	96	91
1913	52,398,000	3,029,705	50,255,267	·96	105	103	96	91
1914	53,668,600	3,033,368	57,006,541	1·08	107	103	109	102
1915	54,448,200	3,056,567	55,924,590	1·03	109	104	107	98
1916	55,235,000	3,071,165	58,442,386	1·06	110	105	111	101
1917	56,035,100	3,083,782	54,568,067	·97	112	105	104	92
			Wheat, Rye and Barley					
1909	50,011,700	1,771,886	21,518,016	·43	100	100	100	100
1910	50,716,600	1,771,655	20,611,245	·41	101	100	91	95
1911	51,435,400	1,765,177	21,904,106	·43	103	99	102	100
1912	52,167,000	1,774,491	22,870,321	·44	104	100	106	102
1913	52,398,000	1,828,429	25,050,454	·48	105	103	116	111
1914	53,668,600	1,822,305	21,244,351	·40	107	103	94	93
1915	54,448,200	1,811,829	23,781,385	·44	109	102	111	102
1916	55,235,000	1,786,684	23,339,225	·42	110	101	108	97
1917	56,035,100	1,746,927	24,153,421	·43	112	99	112	100
1918	56,854,300	1,734,786	22,577,271	·40	114	98	105	93

Cho = 2·45 acres. *Koku* = 4·96 bushels.

manufactured goods and thereby paying for the importation of raw materials and foodstuffs as well as other necessaries. This inevitably places her in a special economic relation to the Asiatic continent, where she can find a wide market for her manufactured goods, and at the same time unlimited supply of raw materials, food, etc.

IX. Chinese Relations

It must be deeply regretted that the hopeful expectation of the author about Chino-Japanese relations stated in the previous report (Economic Journal, September 1916) has been somewhat disappointed. There was surely a sign for the better at that time. But as a result of the unrestricted activity of mischief-makers and propagandists, the relations of the two nations became far from satisfactory. To be fair, it must be said that Japan also is not quite blameless. The attitude of the Japanese Government changed too often. The Okuma Cabinet

was understood to be friendly towards southern China, and the Terauchi towards the northern, while the Hara Ministry professed absolute non-interference, being followed in the same line by the present Government.

It must be admitted that there is some excuse for such changes. Nothing could be done in China without a strong central government, powerful enough to keep order at home, and to free her from external influences which are apt to be made use of by one party or the other at the expense of the real and lasting interest of the country and the people.

The Laotung Peninsula was given away to Russia, then Shangtung to Germany, without any substantial opposition, to the disgrace of her prestige and with untold menace to all the Far Eastern countries, especially to Japan. For self-defence Japan stood up, and drove out Russia even at the peril of her own existence. The expulsion of Germany from Tsing Tau is too fresh a story to be narrated in detail. If China errs internally or externally, the damage falls directly on Japan.

It is clear then that Japan had to come to her assistance and give support to whosoever looked likely to be able to govern her well, aiming always at a strong and unified China, and at the welfare and progress of the teeming population of over 400,000,000. The steps taken in the past by Japan may have been blameworthy, but her sole intention has been for her self-defence and the lasting interest of China.

Of course nothing could be done without money, and during the Great War, when other nations were unable to give China financial help, Japan loaned her big sums, for which Japan is now censured, and not a cent is paid either as principal or interest. Still Japan never lost her patience, and was guided always by a spirit of conciliation, as is proved by her attitude in the Paris and Washington Conferences, as well as in other negotiations with China. When the passing of the resolution in the Chinese Parliament concerning the annulment of the treaty about Liantung became known in November 1922, no one took it seriously, as it was too much contrary to any sense of justice and the rules of international morality. We trust that better and sounder counsels will prevail in the end in China, thereby bringing the two nations into better understanding and friendly co-operation, not only to their mutual benefit, but for the peace and progress of the Orient.

JUICHI SOYEDA

Kudan, Tokyo.

Note.—The adoption of the wide-gauge railway system, mentioned in the previous report (ECONOMIC JOURNAL, September 1916), ended in failure, although the author strove hard for it as the head of the Department of Railways. The same fate awaited the two commissions, one for economic measures and the other for the iron industry.

Tokyo, December 7, 1922.

A NEW CONSTITUTION FOR THE SPANISH NATIONAL BANKS

I. *Introductory*

A GREAT reform has been accomplished not by a law *ad hoc*, but by utilising the law for confirming and prolonging the privilege of issue to the Bank of Spain. The Spanish national private banks developed themselves in particularly close connection with the Bank of issue. There is not yet a proper market rate of discount, the Bank of issue rate being the only discount market in Spain. The private Banks generally limit themselves to the redistribution of credit and capital obtained from the Bank of Spain, or in more precise and classical words: "The market is at the Bank; the Bank never goes into the market."

Another Spanish feature is the dominant position which our Treasury has in the markets of capital, where it is able to borrow cheaper than industrial and commercial people. The law relating to the Bank of issue secures for the Government an influence in the Spanish Economy as a whole, the Government having at the head of the Bank a representative named the Governor. It is further to be taken into consideration that the Spanish National Economy enjoys great independence as compared with foreign Economies, not only on account of the custom laws, but also because of the smallness of the national market as a buyer, and the limited extent of railways not sufficient for the movement of a large trade. Under such circumstances, and in spite of them, the national Banks, which were improving slowly before the war, progressed rapidly during and after the war in several respects.

(*a*) The Spanish Banks grouped themselves into three Banking Associations, those called Centrum, North and Catálana (their respective central seats being Madrid, Bilbao and Barcelona). There was a certain solidarity among the bankers belonging to

these Associations and they dealt with matters of common interest. (*b*) The war compelled them to build up a Syndicate, which is still alive, to lend to France. (*c*) The Associations won from the Bank of issue a differential treatment such that the discount rate applied to them was lower than the official rate. (*d*) Great technical improvements are to be remarked, particularly in the much-developed business of placing securities, as well as in the increasing control the Banks have obtained through financing many of the best Spanish industries. (*e*) An expansive and concentrating development began to take place in three different forms: (1) the Banks group known as Urquijo Banks (to found a new Urquijo Bank, local capital and personal prestige are attracted and a regional autonomy is given to the new Bank); (2) the so-called Banco Central, a till now successful attempt to found in Madrid one Bank getting the subscription of its capital from local Banks who retain their independence, the Banco Central nevertheless building his own filials in the country; (3) the well-known expansion by foundation of an increasing number of county filials, or by taking up local Banks, followed chiefly by the Banco Hispano Americano, Banco de Bilbao (a filial also in London), Banco Español de Crédito, among others. There is still a heavy task before the Spanish Banks. The attempt to apply equal terms to equal operations (conditions, *Kartells*) is in its infancy. The amalgamations are but beginning, and there is no doubt that out of over 150 Banks, now enjoying an independent life in Spain, two or three dozen of the most efficient would be sufficient for the country.

II. *The Reform* (Law of December, 1921).

The central purposes of the reform are as follows:

(*a*) *New political and economic constitution of private Banks.*—A Council is instituted, named the High Banking Council, which will organise the reform. This Council is composed of three different sort of representatives, viz: (*a*) Six persons representing the Banks, elected by the Banks themselves at their three zones (also six other persons as substitutes); (*b*) the first Vice-Governor at the Bank of issue as representative from the Bank of Spain, and (*c*) a representative from the Chambers of Commerce. Over this body, as President, is sitting a representative of the Government, called the Royal Commissioner for Private Banks, among whose powers is the veto. The High Banking Council had to appoint,

and already have appointed, three representatives of their own at the Council of the Bank of issue.

Every Spanish Bank is invited to come voluntarily under the Royal Commissioner into a Banking Community. A register of these Banks is in existence, the Banks registered being to-day in number 103: their capital reaching the figure of over 1,020 million pesetas. Foreign Banks are not admitted in the Register. The Council pay their own expenses, each inscribed Bank being obliged to pay a fee between ½ and ¼ pro thousand of its capital and reserves.

The Council may require any Bank to be inspected. The inspection is carried through by the Bank of Spain, which has to report to the Council.

(β) *Consolidation as statutory law of the relations between the Banks and the Bank of Spain and the Government.*—The allowance hitherto obtained voluntarily by the registered Banks from the Bank of issue is now reinforced by law. It is fixed at one cent when the Bank rate is 5 per cent. or more than 5 per cent. If the rate falls under 5 per cent. the allowance is one-fifth of the Bank rate. Unregistered Banks are excluded from this allowance. To help indirectly this régime, the Government takes a share of the greater income made by the Bank of issue out of discounts affected otherwise than with registered Banks. This share is two-thirds of the difference between Bank rate and exceptional rate allowed to registered Banks. Further exceptional terms are by statute allowed by the Bank to the registered Banks in respect to loans covered by securities under certain circumstances.

(γ) *Improvements of the Banking conditions.*—No Clearing Houses existed in Spain, no banking statistics, no reporting organ to the Government on credit and currency questions. The new law aims at improvement in these respects. In order to call into life the Clearing Houses the Spanish Government allows to the registered Banks some exceptions and special terms in the stamp duty (crossed cheques, domiciliations). The terms will be the subject of a contract with the Treasury, already under negotiation. The Council is invested with the duty of publishing the statistics of Banks, and last, but not least, the Council will be a reporting organ to the Government on currency and credit.

(δ) *New Banking Rules.*—The High Banking Council is (1) obliged to give directly to the registered Banks new banking rules, and (2) may present to the Government proposals of rules respecting every Bank working in Spain. The most important object under the first head is to fix the minimum

capital a Bank must possess to be registered. (The Council has already fulfilled this task, and the minimum capital is one million pesetas for a Bank established in places known in Spain as "banking places," or, what is the same, where the Bank of issue has settled, establishing a filial; and 500,000 pesetas in not banking places. Another obligatory rule now under consideration is to be promulgated, fixing the maximal interests for the "passive" banking business current accounts, deposits, etc.). Furthermore, the ratio is to be fixed between liabilities on demand and the realisable assets (liquidity of Banks).

There is an important task, already fulfilled, of which the interest extends beyond the registered Banks, namely, the scheme of balance sheet in which any Bank in Spain must express every quarter its situation. The scheme proposed by the Council, and approved by the Government on the 24th September last, is shown below.

ASSETS.

I. Cash and Banks:

Cash on hand and at the Bank of Spain.
Foreign currency (real value)
Cash at other Banks.

II. Portefeuille:

Bills and commercial papers due not longer than 90 days.
Id. *id.* longer than 90 days.
Securities:
Public securities.
Other securities.

III. Credits:

Loans covered by special warrantee.
Several debtors at sight.
Id. at term (time loans).
Id. in foreign currency (real value).

IV. Premises and Real Estate.
V. Furniture.
VI. Shareholders (liability on uncalled capital).
VII. Own Shares on Portefeuille.
VIII. Any other asset that Banks judge convenient to express.
Total.

LIABILITIES.

I. CAPITAL.

II. RESERVE FUNDS.

III. CREDITORS:

At sight.

At no longer than 30 days.

At longer than 30 days.

Creditors for foreign currency (real value).

IV. BILLS AND OTHER LIABILITIES TO BE PAID.

V. ACCEPTANCES.

VI. Any other liability that Banks judge convenient to express.

TOTAL.

FRANCISCO BERNIS

RECENT OFFICIAL PUBLICATIONS

Report of an Inquiry into the Wages and Hours of Labour in the Cotton Mill Industry. By G. FINDLAY SHIRRAS. (Labour Office, Government of Bombay.)

THIS inquiry into the wages and hours of labour in the Cotton Mill Industry of the Bombay Presidency is directed to ascertain the amount earned by different classes of work-people in 1921 compared with 1914. Beautiful coloured diagrams based on tables show the proportionate numbers of men, women and children (including lads) in different occupations at several centres, and also wages and hours for different classes of workpeople. The average daily earnings of men (working full time) for the Presidency were 1r. 4a. 7p.; the corresponding figure for women was 10a. 9p. The *monthly* earnings per head show the women's earnings more nearly *half* that of men. The wages of all operatives who are on the "Muster Rolls" are augmented by a substantial bonus. The frequency-distribution which shows the number of men—and likewise of women (and children)—earning different net amounts is of much statistical as well as economic interest. The cost of living compared with nominal wages shows a rise of real wages over the pre-war level of 17 per cent. for the Bombay Presidency; against 10 per cent. for the United Kingdom, 34 for the United States.

League of Nations. Report on Double Taxation submitted to the Financial Committee. By PROFESSORS BRUINS, EINAUDI, SELIGMAN, and SIR JOSIAH STAMP.

Report on an Inquiry into Working-class Budgets in Bombay. By G. FINDLAY SHIRRAS. (1923. Labour Office, Government of Bombay.)

THE distribution of expenditure on food, clothing, rent, etc., varying with the size of income and the number of children, and other interesting results presented by this compilation of over 3000 budgets, will be considered in a subsequent number of the ECONOMIC JOURNAL.

Prices and Wages in India (Department of Statistics, India). 1923. [No. 1719.]

WHOLESALE prices, for periods of years, in different regions, are given for food-grains and other important articles, including exports and imports; and retail prices for food-grains and salt. The movement of prices is exhibited by way of index-numbers. *E.g.* for India (the total of twenty-one regions separately treated) there are given (unweighted) index-numbers for ten food-grains and for salt, comparing prices of 1921 with those of 1913 as base (= 100). The Median of the eleven relative prices is 206; the Arithmetic Mean 189.

The Twenty-second Financial and Economic Annual of Japan, 1922. Tokyo.

THE year 1921 was a period of readjustment after the breakdown of markets in 1920; not remarkable for activity in industry and commerce. There are, as usual, interesting statistics as to production, wages, prices, etc. The Median of the index-numbers for wages in fifty-one occupations in the first half of 1920 compared with 1900 as base is 466; while the corresponding figure for 1913 is 161. The Median of forty-one prices, in Tokyo, 1920, compared with the prices of 1900 as base is 335.

Report of the Committee of Inquiry into Saving Certificates and Local Loans, etc. 1923. [Cmd. 1865.] Price 6*d.* net.

THE continuance of the arrangement under which half the proceeds of certificates are made available for local loans and other technical points are considered.

CURRENT TOPICS

ADAM SMITH was born on June 5, 1723. The bicentenary was celebrated at his birthplace, Kirkcaldy. The University of Glasgow has arranged an exhibition of memorials. An oration was delivered before the British Academy by Professor W. R. Scott. We honour the forerunners, but we honour most the acknowledged founder of our Science, who—the first to apply with grandeur of scale and design the intellectual tools and high outlook of philosophy to the business of men—brought to earth (we like to think) a new Muse.

The following have been elected to membership of the Royal Economic Society :-

Adam, E.	Isaac, D. J.
Banerjee, S. L.	Jay, L. M.
Blair, G. N., M.C.	McGoun, A. F.
Campion, C. A. B.	Morris, A.
Caulcutt, J.	Mozumdar, K.
Chitnis, A. R.	O'Leary, J. B.
Clarke, G. P.	Pearey, W. H.
Dumbell, S.	Rees, W. S.
Evans, A. N.	Smith, C. F.
Green, A. R.	Smith, J. MacDonald.
Hannibal, T.	Warburton, C. A.
Indra, B. K.	Wood, Prof. L. A.

The following have compounded for life membership :—

Cordingley, H.	Hurd, W. B.
Cowcher, W. B.	Jay, L. M.
Gray, Prof. A.	Kerr, H. C.
Hollander, Prof. J. H.	Morris, A.

The following have been elected to library membership:—Archives of Law, Economics and Political Science, National University of Peking; Kings' College for Women, Kensington.

OUR Spanish correspondent, Professor Francisco Bernis, whose communication about Spanish Banks we print on another page, writes with authority on that subject. For he has played a great part in bringing about the recent reforms. He contributed largely to the elaborate Report on the Banking Constitution of

Spain issued by the Ministerio de Hacienda in 1921. He is Secretary to the New Banking Council, whose functions he has briefly described above. A fuller account of Spanish Banking has been given by him in the brochure entitled *El Banco de España Y La Economia National.* He has returned to the subject in the volume which we announce among "New Books." But the economic consequences of the war which form the subject of his new book are not confined to currency and banking.

PROFESSOR WESTERGAARD writes :—The small circle of Danish economists has lost one of its most prominent members, Marcus Rubin, who died March 6, 1923, at the age of sixty-nine. Twice in his life it fell to him to organise official statistics. As a very young man he was appointed under the Magistrate of Copenhagen to organise a municipal statistical office, and in 1895 he was placed at the head of the Statistical Department of Denmark, then under reorganisation. He solved these tasks in a brilliant way, both institutions being soon on a level with the most prominent institutions of the kind. Later in life he was appointed chief of the Department of Taxes and Duties, and in 1913 Director of the Danish National Bank, in which office he died.

Rubin co-operated with me in two statistical investigations, namely, on the Mortality of the Rural Population (1886) and on Statistics of Marriages (1890). The latter contained observations which were at that time new : on fecundity and fertility, and on the infant mortality in large and small families. But his main interest was History. He published investigations on the history of the population of Copenhagen, 1630–1730, chiefly based on birth-statistics; and he compiled the Economic and Social History of Copenhagen (or rather the whole country), 1807–39, in two volumes, which won him a well-deserved reputation as an historian. He lived with his pen in his hand, writing many articles on various subjects, always in an exceptionally lucid and interesting style. He was President of the Danish Economic Society, 1900–1916; member of the International Statistical Society, and honorary Fellow of the Royal Statistical Society.

THE Ven. Archdeacon Woodthorpe, M.A., has been appointed Professor of Economics and Director of Tutorial Classes in the University of Otago, New Zealand, in place of Professor W. Henderson Pringle, M.A., LL.B., resigned.

RECENT PERIODICALS AND NEW BOOKS

Journal of the Royal Statistical Society.

JANUARY, 1923. *The Relations of Capital and Labour.* Presidential address by the RIGHT HON. LORD EMMOTT. *Changes in the Birth-rate and in Legitimate Fertility in London*, 1911–21. T. T. DE JASTRZEBSKI. Every table shows a decline.

MARCH. *Discussion on the Registration of Disease.* Opened by DR. R. DUDFIELD. *Statistics of Unemployment.* J. HILTON. *Wholesale Prices of Commodities in* 1922. EDITOR OF THE "STATIST." The "grand total" index-numbers for 1920, 1921, 1922 were respectively 251, 155, 131 (relative to 1867–77 = 100).

Journal of the Institute of Bankers.

DECEMBER, 1922. *Current Monetary Problems.* J. M. KEYNES. In a first lecture Mr. Keynes illustrated general principles by reference to the present disorganised state of German business.

JANUARY, 1923. In a second lecture Mr. Keynes considered the remedies for the ills of Germany; comparing three plans of stabilisation. In two following lectures he discussed devaluation with reference to the case of Great Britain; inclining to stabilise sterling in the neighbourhood of its present value, rather than to restore the old par. *The Present Economic Situation in Germany.* J. M. DAVIDSON. The bewilderment and confusion of German business life are strikingly described.

Economica.

JANUARY, 1923. *Tests of Correspondence between Statistical Grouping and Formulæ.* PROF. A. C. BOWLEY and L. R. CONNOR. In continuation of a controversy on hypotheses proper to Prof. Karl Pearson's criterion of good fit. *Public Authorities and Unemployment.* D. H. MACGREGOR. There are reasons for the neglect of repeated recommendations that public authorities should in good times reserve work against a period of depression. They are not prophets; cannot be sure that by refraining now from certain public works they may not be withholding the amount of employment which the existence of those constructions in the future would require, etc.

The Edinburgh Review.

APRIL, 1923. *The Gold Standard.* THE EDITOR. Mismanagement of finance and currency during the war greatly increased its cost. Inflated currency and inflated oratory, producing an inflated mentality, led to labour troubles. Soundness will not be assured "until once more every holder of our paper tokens is able on demand to obtain gold."

Contemporary Review.

APRIL, 1923. *The Labour Problem.* SEEBOHM ROWNTREE. "Love" as taught by Tolstoy is needed for the solution of the problem. A "new spirit" would secure improvements in many respects, *e.g.* in the worker's status.

MAY. *The Financial Situation.* DR. HUGH DALTON. Both the near and distant future are uncertain. *French Labour and the Ruhr Problem.* JEAN LONGUET. The solution supported by the French and German working classes in agreement with those of Great Britain and other countries is advocated. *The Norfolk Agricultural Dispute.* SIR HENRY REW. The situation demonstrates the necessity of re-establishing wage-fixing bodies in agriculture.

The Nineteenth Century.

APRIL, 1923. *Competition and War.* ARTHUR CASPERZ. *Currency and Prices.* LORD VERNON.

The Fortnightly Review.

MAY, 1923. *Industrial Responsibility for Unemployment.* LT.-COL. D. C. MCLAGAN. Six different methods of administration having been compared, administration by industry as a whole is preferred.

The Irish Economist.

APRIL, 1923. *Going to the Fair.* PAUL GREGAN. A sprightly description of various Irish markets. The cattle fair threatened by the importation of Canadian stock might be saved by "finishing" the cattle in Ireland. *An Impression of Western Canada.* C. R. FAY. *The Co-operative Movement in Sweden.* ARTUR BÖRJESSEN. Swedish farmers, independent and individualistic, form associations slowly. *Irish Labour and the Guild Idea.* R. J. MORTISHED. *Agricultural Co-operation in India.* P. P. PILLAI.

Labour Gazette (Bombay).

JANUARY, 1923. This number contains a summary of the recent Wage Census in the cotton industry in Bombay and other Indian centres (described above, p. 265).

International Labour Review (Geneva).

FEBRUARY-MARCH, 1923. *Labour Legislation and Economic Possibilities.* PROF. I. P. DE VOOYS. *Labour Strifes in Continuous Industries in the United States.* H. B. DRURY. *British Labour and the Depression.* SIDNEY WEBB. The economic depression, though seriously affecting the membership and funds of Trade Unions, has not caused any collapse of their organisation; owing to the improvement in education during the last half-century.

APRIL. *The Trade Union Movement in Sweden.* S. HANSSON. *Health and the Workers.* DR. RENÉ SAND. *Migration Movements Throughout the World in 1913, 1920 and 1921.* The total volume of emigration has diminished by nearly two-thirds in 1921 compared with 1913, that of immigration by more than a half (the discrepancy partly due to clandestine emigration).

Quarterly Journal of Economics (Cambridge, Mass.).

FEBRUARY, 1923. *Some Aspects of Protection further Considered.* F. D. GRAHAM. Protection may have benefited America in the past, but is not suited to present conditions. *Prices and the Quantity of Circulating Medium,* 1890–1921. HOLBROOK WORKING. *The Rochester Clothing Market.* E. W. MOREHOUSE. Collective bargaining is building up a code of industrial law co-existent with and analogous to the law administered by Courts. *Higher and Lower Desires.* A. F. M'GOUN.

The American Economic Review (Cambridge, Mass.).

MARCH, 1923. *Company Unions and Trade Unions.* HENRY SEAGER. Company unions (shop committees or works councils) have flourished more than trade unions lately. *The Tariff Act of* 1922. ABRAHAM BERGLUND. The Act is among the highest with respect to rates in American history. *Federal Aid to Education.* RUFUS S. TUCKER. *Economic Conditions in Europe.* H. G. MOULTON. When the nations cease forcing industry into artificial channels, from simultaneously demanding and *preventing* the payment of debts, when commerce is free and trade is balanced, then Europe may be on her way to prosperity. *European Financial Situation and Remedies.* B. M. ANDERSON. *Constructive versus Dollar Diplomacy.* HENRY BRUÈRE. *Stabilisation of Europe.* IRVING FISHER. The key to the rehabilitation of Europe is the *intervention of the United States;* to assure Europe peace, reduce her militarism and readjust reparation payments and inter-allied debts, and for a time extend loans.

SUPPLEMENT. *Papers and Proceedings of Thirty-fifth Annual Meeting of the American Economic Association* (Chicago, December, 1922).

Political Science Quarterly (New York).

MARCH, 1923. *The Effects of Taxation.* E. R. A. SELIGMAN. The effects are considered under five heads: (1) the novelty of the tax, with special reference to its capitalisation; (2) the proportion between the sacrifice of the taxpayer and the gain of the Treasury; (3) the unintended; (4) the injurious; (5) and the indirect effects of taxation. *Jeremy Bentham.* GRAHAM WALLAS. A genial study.

Bureau of Labour Statistics (Washington).

No. 320, 1922. *Wholesale Prices,* 1890 *to* 1921. The index-number for all commodities shows 226 for 1920, 147 for 1921, compared with 100 for 1913. Charts exhibit a close parallel between the trend of prices for all commodities and for farm products and food separately.

No. 315. *Retail Prices,* 1913 *to* 1921. A record of price changes under the heads, food, coal, gas, dry goods.

Journal of Political Economy (Chicago).

FEBRUARY, 1923. *Productive Apparatus and the Capitalist.* G. A. KLEENE. *English Agriculture Since* 1914. R. LENNARD. *Overhead Costs in Modern Industry,* I. J. MAURICE CLARK. *Provincial Taxation in Canada.* W. C. KEIRSTEAD.

APRIL. *The Life and Work of Simon Nelson Patten.* R. G. TUGWELL. *Overhead Costs in Modern Industries*, II. J. MAURICE CLARK. Among other features, joint production is described. *The Liquidity of Bank-earning Assets.* WALDO F. MITCHELL. The "orthodox" theory of short-time advances and automatic liquidity is considered. *International Comity in Taxation.* C. J. CROBAUGH. Double taxation is discussed. *The Theory of Hedging.* C. O. HARDY and L. S. LYON.

Journal des Economistes (Paris).

FEBRUARY, 1923. *Les inquiétudes de Pangloss.* YVES GUYOT. *Le rapport du gouverneur de la Banque de France.* Y. G. *L'effondrement financier le l'Autriche.* S. ABERDAM. *La situation internationale des impôts.* L. R. GOTTLIEB.

MARCH. *Finances incohérentes.* YVES GUYOT. *Le Federal Reserve des États-Unis.* N. MONDET. *La propriété scientifique.* FERNAND JACQ. On the rights of inventors and discoverers.

APRIL. *L'or, sa situation actuelle et prévisions.* YVES GUYOT. *La situation financière de la Grande-Bretagne.* W. M. J. WILLIAMS.

L'Économiste Français (Paris).

Among many instructive articles on current affairs (the conditions of, and relations with, Russia, the problem of "Reparations," etc.) we may distinguish M. E. Payen's continued studies on the production and price of various raw materials: *silk* (March 3), the manufacture of which, exported from Lyons, show in 1922 an increased value; *silver* (March 10), of which the "extraordinary avatars" of war-time have become matters of ancient history, silver which, descending towards its pre-war level, showed in 1922 the mean annual price $34\frac{7}{16}$ pence per oz. as against $61\frac{9}{16}$ (mean, maximum $89\frac{1}{2}$) in 1920; *copper* (March 31), of which the value has declined not only from the cessation of the demand for munitions, but also from the unloading of British stores; *cotton* (April 28), the price of which rose during 1922.

Revue d'Economie Politique (Paris).

JANUARY–FEBRUARY, 1923. *La pratique de la loi du* 17 *Avril*, 1919, *sur la réparation des dommages de guerre.* X. *Les finances locales en Alsace et en Lorraine*, II. W. OUALID. *L'industrie sidérurgique en France au début de la Révolution.* H. BOURGUIN. *Notes sur la Russie.* B. ELIADIEFF.

Weltwirtschaftliches Archiv (Jena).

JANUARY, 1923. *Neue Entwicklungen in der Weltwirtschaftlichen Stellung der Vereinigten Staaten.* DR. W. NOTRY. *Wirkungen des Weltkrieges auf Argentiniens Volkswirtschaft.* R. A. DOMAN. The results of the war were on the whole favourable to Argentina. *Wirtschaftliche Organisationsideen der Gegenwart.* F. K. MANN. *Das Geld als Quelle von Missverständnissen im internationalen Güteraustausch.* A. VAN GIJN.

Archiv für Sozialwissenschaft und Sozial-politik (Tübingen).

Vol. L., No. 2. *Arbeit als Tatbestand des Wirtschaftslebens.* F. V. GOTTL-OTTLILIENFELD. *Zur Kritik Sozialer Grundprinzipien,* II. PROF. DR. GOETZ BRIEFS. *Die Krise des Kapitalismus.* DR. JAMES STEINBERG. *Studien über Britisch-Indies.* DR. KARL KOLWEY. *Eine soziologische Theorie der Abstraktion.* DR. PAUL SZENDE.

Zeitschrift für Volkswirtschaft und Sozial-politik (Vienna).

Vol. III., Nos. 1–3. *Machtpsychologie.* DR. FRIEDRICH WIESER. A new psychology which takes account of the compelling influence of others on the will of the individual. *Die ökonomischen Grundbegriffe.* DR. FELIX KAUFMANN. *Die juristiche und die ökonomische kategoric des Geldes.* DR. OSKAR ZAGLITS.

Giornale degli Economisti (Rome).

FEBRUARY, 1923. *Piccoli e grandi veri e falsi imprenditori.* V. PORRI. *Inflazione monetaria e Corso des Cambi.* MARCO FANNO.

MARCH. *I porti dall'Elbe a Napoli.* EPICARMO CORBINO. *Intorno al regione delle Assicurazioni sulla vita.* G. MORTARA. *Il fattore "tersa" nella ricostruzione odierna.* G. C. DONVITO.

APRIL, 1923. *La egemonie militari in Europa avanti e dopo la guerra.* F. ZUGARO. Statistics relating to the magnitude of armaments in different States (1913–1922). *La rilevazioni amministrative.* A study in costing.

MAY, 1923. *Inflazione monetaria e corso dei Cambi.* MARIO FANNO.

La Riforma Sociale (Turin).

MARCH–APRIL, 1923. Summing up conclusions drawn from the inquiry into Governmental administration instituted last year by the Riforma. *Ancora sulla questione doganale.* F. A. REPACI. Argument is enforced by the testimony of industrials who have been injured by protection.

Metron (Ferrara).

Vol. I., No. 1, 1923. On the mathematical expectation of the moments of frequency distributions in the case of correlated observations. A. A. TSCHUPROW. *The Precision of Measurements estimated from Samples.* A. L. BOWLEY. *Die Berechnung der Tauglichkeitsprozente in der Heeresergänzungs statistik.* W. WINKLER. On statistics of military efficiency.

Scientia (Milan).

Vol. XXXIII., No. CXXXI. 3. *La France démocratie, rurale son influence et son rôle en Europe.*

Skandinavisker Kreditaktiebolaget (Gothenburg and Stockholm).

APRIL, 1923. The second number of this publication contains an article by Professor Cassel on the problem of monetary stablisation, and the quarterly report issued by the Swedish Statistical Department.

Social Science Quarterly (Peking).

JANUARY–MARCH, 1923. *The Reconstruction of China and its Economic Background.* PROF. C. S. CHEN. *The State of Individual Liberty in China.* DR. S. C. WANG. The articles denoted by these and other tantalising titles are buried under Chinese symbols.

NEW BOOKS

English.

ANGAS (L. L. B.). Germany and her Debts: a Critical Examination of the Reparation Problem. With an Appendix on Exchange Stabilisation. London: Simmonds. 1923. Pp. 158.

Annual Register. A review of public events at home and abroad for the year 1922. Edited by M. Epstein, Ph.D. London: Longmans. 1923.

BASTABLE (C. F.). The Commerce of Nations. Revised by T. E. Gregory. London: Methuen. 1923. Pp. 212.

[The ninth edition of this well-known work.]

Bourneville Housing: a Description of the Housing Schemes of Cadbury Brothers, in 1922. Bournville. Pp. 55.

British Association Report on Credit Currency, Finance and Foreign Exchanges. London: Burlington House.

[In seven very closely printed pages it has been sought to answer, with the greatest common measure of agreement, seven leading questions.]

CALDER (JOHN). Capital's Duty to the Wage-earner. A manual of principles and practice on handling the human factors in industry. London: Longmans. 1923. Pp. 326.

CHISHOLM (GEORGE G.) and BIRRELL (J. HAMILTON). A Smaller Commercial Geography. London: Longmans. 1923. Pp. 301.

COFFEY (DIARMID). The Co-operative Movement in Jugo-Slavia, Rumania and North Italy. (Carnegie Endowment for International Peace.) Oxford (London, etc.): University Press. 1922. Pp. 99.

[The author is Librarian of the Co-operative Reference Library, Dublin.]

COHEN (JOSEPH L.). Insurance by Industry Examined. London: King. 1923. Pp. 120.

COLE (G. D. H.). Trade Unionism and Munitions. Oxford: Clarendon Press. 7*s*. 6*d*.

COLE (G. D. H.). Workshop Organisation (Economic and Social History of the World War). Oxford: Clarendon Press. 1923. Pp. 186.

CONSETT (REAR-ADMIRAL M. W.). The Triumph of Unarmed Forces, 1914–18.

[An account of the system by which Germany secured supplies during the War; suggesting that an effective blockade would have shortened the War.]

COX (HAROLD). The Problem of Population. London: Cape. 1922. Pp. 198.

DALTON (HUGH). The Capital Levy Explained. London: Labour Publishing Co. 1923. Pp. 26. 1*s*.

DARLING (J. F.). Currency Co-operation in the British Empire (Not published.)

FORDHAM (MONTAGUE). Agriculture and the Guild System. With a Preface by M. F. (Issued by the National Guilds League.) London: King. Pp. 24.

HADLEY (ARTHUR TWINING). Economic Progress of Democracy. Cambridge: University Press. 1923. Pp. 160.

HOWELL (J. PRYSE). An Economic Survey of a Rural Parish. (Institute for Research in Agricultural Economics.) Oxford: University Press. 1923. Pp. 30.

INNES (HAROLD A.). A History of the Canadian Pacific Railway. London: P. S. King. Toronto: McClellan & Stewart. Pp. 365. 12*s*. 6*d*.

[*"An attempt to trace the history of the C.P.R. from an evolutionary and scientific point of view."* The attempt would have succeeded better, if a map had made it possible to follow the details of local geography, and if the text had been less encumbered with lengthy and often superfluous notes.]

International Chamber of Commerce. A Brief Survey of Italy's Economic Condition. Rome: Italian Section of International Chamber. 1923. Pp. 71.

KELTIE (SIR JOHN) and EPSTEIN (DR. M.). The Statesman's Year-Book for the year 1923. London: Macmillan. 1923. Pp. 1583.

[In the sixtieth issue of this Historical and Statistical Annual there are two new chapters dealing respectively with Northern Ireland and the Irish Free States. The comparison of the military and naval strengths of the principal countries, and the description of the "mandated" territories, are important features of this year's compilation.]

KRICHEWSKY (S.). A Method of Curve Fitting. Cairo: Government Press. 1922. Pp. 17.

KOCH (M. H. DE). The Results of Government Ownership in South Africa. Capetown: Juta. 1922. Pp. 187.

LOWENFELD (HENRY and MARGARET). Back to Prosperity: a new Aspect of Practical Life. London: Wilson. 1923. Pp. 268.

LLOYD (E. M. H.). Stabilisation an Economic Policy for Producers and Consumers. London: Allen and Unwin. 1923. Pp. 128.

MAIRET (G.). Trade, Transport and Finance. With Examination Questions on the Theory and Practice of Commerce. London: Macmillan. 1923. Pp. 444.

MIDDLETON (THOMAS HUDSON). Food Production in War. (Economic and Social History of the World War.) Oxford: University Press. 1923. Pp. 373.

MUIR (RAMSAY). Politics and Progress. London: Methuen. 1923. Pp. 182.

[To give a coherent view of the political and social aims of Liberalism is the purpose of this little book.]

MUKHERJEE (B.). The New Yellow Peril. (Sir Mookerjee Silver Jubilee Volumes.) Calcutta: University. 1921. Pp. 22.

[The title designates Western gold British Capital, which with many benefits has also brought disadvantages to India, political domination by alien capitalists, exclusion from control and profits and higher paid work, abstraction of mineral wealth, etc. China too is in danger of being bought up by the West.]

MUKHERJEE (B.). Economic Reconstruction (Reprinted from Lucknow University Journal). Lucknow: N.K. Press.

MUKHERJI (PROFESSOR PANCHANANDAS). The Co-operative Movement in India. Being a study of the co-operative principle and its diverse applications in India and abroad. With a Foreword by Mr. J. T. DONOVAN (Secretary to the Government of Bengal). Third Edition (entirely rewritten and considerably enlarged). Calcutta: Thacker. 1923. Pp. lxxx+468.

OGAWA (GOTARO). Expenditure of the Russo-Japanese War. London: Milford (Oxford University Press). Pp. 257.

ONO (GIICHI). War and Armament Expenditure of Japan. New York: Oxford University Press. 1922. Pp. 314.

ONO (GIICHI). Expenditures of the Sino-Japanese War. Carnegie Endowment. London: Milford (Oxford University Press). 1922. Pp. 330.

RAU (B. RAMACHANDRA). Present-day Banking in India. Calcutta: University. 1922. Pp. 301.

REDMAYNE (SIR R. A. S.). The British Coal-Mining Industry during the War. (Economic and Social History of the World War.) Oxford: Clarendon Press. 1923. Pp. 348.

REMER (C. F.). Readings on Economics for China. Shanghai: Commercial Press. 1922. Pp. 685.

[Designed for Chinese students.]

RICARDO (DAVID). Economic Essays. Edited with Introductory Essay and Notes by (the late) E. C. K. GONNER, K.B.E. London: Bell. 1923. Pp. 315.

ROBERTSON (D. H.). The Control of Industry. With an Introduction by J. M. KEYNES. London: Nisbet. 5*s*.

ROWE (J. W. F.). Wages in the Coal Industry. London: King. 1923. Pp. 174.

SASTRI (K. R. R.). The Madura Gilds.

[Notes on the remains of gild organisation among craftsmen of Madura, with suggestions as to the means of strengthening it.]

SHADWELL (A.). The Engineering Industry and the Crisis of 1922. A chapter in industrial history. London: Murray. 1922. Pp. 90. 1*s.* 6*d.*

WELBOURNE (E.). The Miners' Unions of Northumberland and Durham. Cambridge: University Press. 1923. Pp. 321.

Worker's Register of Labour and Capital. Prepared by the Labour Research Department. London: Labour Publishing Co. 1923. Pp. 223.

[*A preface signed by G. D. H. Cole and Elinor Burns points to their having prepared this collection of facts and illustrations, by which the champions of Labour will be better equipped for stating the workers' case and for understanding and penetrating the case of Labour's enemies.*]

American.

BOUCHE (O. FRED). A Critique of Economics: Doctrinal and Methodological. New York: Macmillan Co. 1922. Pp. 305.

JACKSON (J. HUGH). Audit Working Papers. Their Preparation and Content. New York: American Institute of Accountants. 1923. Pp. 201.

STRONG (E. K.) and UHRBROCK (R. S.). Job Analysis and the Curriculum. Baltimore: Williams & Wilkins. 1923. Pp. 146.

STROVER (CARL). Monetary Reconstruction. Chicago: The Author. 1922. Pp. 91.

TUGWELL (REXFORD G.). The Economic Basis of Public Interest. Menasha (Wisconsin): Banta. 1922. Pp. 138.

[A thesis by a candidate for the degree of doctor; on the conditions which justify the interference of Government with the conduct of a business.]

WATSON (FRANK DEKKER). The Charity Organisation Movement in the United States: a Study in American Philanthropy. New York: Macmillan Co. 1922. Pp. 560.

Italian.

FRACCACRETA (ANGELO). Sicurezza e insicurezza economica. Naples: Pierro. 1923. Pp. 39.

BERNÁCER (GERMÁN). La teoria de las disponibilidades como interpretacion de las crisis económicas y del problema social. Barcelona: "La Unión." 1923. Pp. 32.

[" Disponibility " is the character of funds in the hands of entrepreneurs as speculators, as distinguished from money destined for consumption. The author recommends a limitation of disponibility.]

PANTALEONI (M.) e BROGLIO (CONTE R.). Temi, Tesi, Problemi e questi di economia politica teorica e applicata. Bari: Laterza. 1923.

German.

ALTMANN and many others. Grundriss der Sozialökonomik. II. Abteilung. II. Teil. Wirtschaft und Technik. Tübingen: Mohr. 1923. Pp. 220.

FEIG (DR. IRMGARD). Unternehmertum und Sozialismus. Jena: G. Fischer. 1922. Pp. 66.

[Traces relation of Socialism and enterprise.]

Finanzpolitische Zeitfragen. Produktionssteigerung durch organischen Umbau. Stuttgart: Moritz. 1923. Pp. 52

[Several authors contribute to this, the third issue for 1922-3 of the series published by the *Deutsche Gesellschaft für Reichserbrecht.*]

GESELL (SILVIO). Denkschrift für die Deutschen Gewerkschaften in der frage der Währung der Valuta und der Reparationen. Potsdam: Müller. Pp. 159.

GOLDSCHEID (DR. RUDOLPH) and others. Halt mit der deutschen Papiergeldflut (Finanzpolitische Zeitfragen). Stuttgart: Moritz. 1922. Pp. 32.

HARBURGER (W.). Gleitende Währung mit einem theoretischen anhang: Die Versicherung gegen Geldentwertung. Munich: Duncker & Humblot. 1923. Pp. 80.

KEILHAN (DR. WILHELM). Die Wertungslehre. Versuch einer exakten Beschreibung der ökonomischen Grundbeziehungen. Jena: G. Fischer. 1923. Pp. 243.

KERSCHLAGL (DR. RICHARD). Die Entwicklung des bargeldlosen Zahlungsverkehres. Vienna: Verband österreichischer Banken. 1922. Pp. 47.

KRAUSS (DR. ROBERT). Die deutsche, englische und französische Kriegsfinanzierung. Berlin: Gruyter. 1923. Pp. 194.

LEVY (HERMANN). Die Vereinigten Staaten von Amerika als Wirtschaftsmacht. Leipsic: Teubner. 1923. Pp. 135.

LOTZ (WALTHER). Valutafrage und öffentliche Finanzen in Deutschland. Munich and Leipsic: Duncker and Humblot. 1923. Pp. 118.

OPPENHEIMER (FRANZ). System der Soziologie. Vol. I, Part I. Jena: G. Fischer. 1922.

[A new theory of "Sociology," representing the considered opinions on the subject of a writer whose work has won no little respect in learned circles. The first part of Vol. I deals with general principles, and especially with the psychology of sociology.]

PLANT (T.). Wesen und Bedeutung des englischen Gildensozialismus. Jena: Gustav Fischer. 1922. Pp. 35.

PLANT (T.). Entstehen, Wesen und Bedeutung des Whitleyismus. Jena: Gustav Fischer. 1922. Pp. xii + 341.

[Plant regards the Whitley Councils as the crown of the system of industrial conciliation.]

RAŠIN (DR. ALOIS). Die Finanz- und Wirtschaftspolitik der Tschechoslowakei. Einzig autorisierte Übersetzung, von Dr. Paul Eisner. Munich: Duncker & Humblot. 1923. Pp. 164.

SCHWIEDLAND (E.). Volkswirtschaftlehre. II. Die Gebiete der wirtschaftlichen Tätigheit. Dritte Anflage. Stuttgart: Kohlhammer 1923. Pp. 217.

SCHWIEDLAND (E.). Das Transportwesen. Dritte Anflage. Stuttgart: Kohlhammer. 1923. Pp. 39.

STEIN (DR. LUDWIG). *Die Soziale Frage im Lichte der Philosphie.* Stuttgart: Enke. 1923. Pp. 592.

[A new and revised edition of lectures on Sociology and its history by the Professor of Philosophy, at the University of Bern.]

TRAVERS-BORGSTROEM (ARTHUR). Mutualismus. Autorisierte Ubersetzung. Munich: Duncker & Humblot. 1923. Pp. 125.

WALTERSHAUSEN (A. SARTORIUS VON). Einführung in die Volkswirtschaftslehre. Leipsic and Berlin: B. G. Teubner. 1922.

[An "Introduction" to Economics which in its brilliance and originality raises the work far above a mere text-book.]

WEBER (ALFRED). Die Not der geistigen arbeiter. Munich and Leipsic: Duncker and Humblot. 1923.

WICKSELL (K.). Vorlesungen über Nationalökonomie und Grundlagen der Marginalprinzipes. Vol. II. Geld und Credit. Jena: Fischer. 1922. M. 52.

WOLF (JULIUS). Markkurs, Reparationen und russiches Geschäft. Stuttgart: Enke. 1922. Pp. 31.

French.

ANSIAUX (MAURICE). Traité d'Économie politique. Tome deuxieme. Prix et revenus. Paris: Giard. 1923. Pp. 661.

[The sequel of the volume reviewed.]

BARNICH (GEORGE). Comment faire payer l'Allemagne. Paris: Ferenczi. 1923. Pp. 231.

DEMANGEON (ALBERT). L'Empire Britannique. Étude de Géographie Coloniale. Paris. Pp. 280.

HOFFHERR (RENÉ). Le Boycottage devant les cours Anglaises, 1901–1923. Paris: Giard. 1923. Pp. 180.

SAINT LÉON (É. MARTIN). Histoire des Corporations de Métiers . . . Suivie d'une étude sur l'Évolution de l'Idée corporative De 1791 a nos jours. Troisième Edition. Paris: Alcan. 1922. Pp. 876.

TRISCA (PETRE). Le chèque son internationalisation et son risque professionel. Paris: Giard. Pp. 290.

VIALLATÉ (ACHILLE). L'impérialisme économique. Et les relations internationales pendant le dernier demi-siécle. Paris: Colin. 1923. Pp. 316.

Spanish.

BERNIS (FRANCISCO). Consequencias economicas de la guerra. Madrid: Maestre. 1923. Pp. 388.

ESTRADA (V. E.). The Incautation, its True Meaning and Economic Functions. Guayaquil: Foyain. 1923. Pp. 24.

[The word "incautation" as used in Equador expresses the compulsory expropriation of all drafts of exchange originating from exports at a rate of exchange that is regulated daily by certain defined factors, regard being had to the inconvertible currency and other conditions of Equador. Advantages are attributed to the system.]

THE ECONOMIC JOURNAL

SEPTEMBER, 1923

RICARDO'S INGOT PLAN

A CENTENARY TRIBUTE

THE hundredth anniversary of the death of David Ricardo, 11th September, 1823, is best commemorated by fresh study of his works. His writings on theory are not likely to be forgotten. The present pages are a tribute to him as author of a practical Plan for the improvement of our system of Currency, a Plan which did not remain entirely a theory, but in great part passed into law, and may possibly do so again. It did not take hold at once and for all time, like Montague's plan of Exchequer Bills. But it once had fair promise of success in curing a currency confusion like our own, and arising, like our own, during and after a Great War.

When Ricardo first printed the Plan in 1811, the suspension of cash payments for the Bank's notes had lasted fourteen years. Depreciation of the notes, judged by the combined evidence of the market price of gold (over against the Mint price) and the foreign exchanges, had only become serious in the last four years, when its seriousness led to the inquiries of the Bullion Committee of the House of Commons in 1810. The Committee ("Horner's Committee") did not include Ricardo, or call him as a witness. But his letters "On the Price of Gold," in the *Morning Chronicle* of August and September 1809 had brought him into notice, and he had followed them up by a tract of which the title conveys the drift of the argument: "The High Price of Bullion a Proof of the Depreciation of Bank Notes." In the Preface, dated 9th December, 1809, the writer frankly admits that he had taken his cue from Lord King. The book itself is dated 1810. There is no hint of the Ingot Plan till the fourth edition (1811).

Till then (*e. g.* 3rd ed., 1810, p. 50) we read: "The remedy which I propose for all the evils in our currency is that

the Bank should gradually decrease the amount of their notes in circulation until they shall have rendered the remainder of equal value with the coins which they represent, or, in other words, till the prices of gold and silver bullion shall be brought down to their Mint price. I am well aware that the total failure of paper credit would be attended with the most disastrous consequences to the trade and commerce of the country, and even its sudden limitation would occasion so much ruin and distress that it would be highly inexpedient to have recourse to it as the means of restoring our currency to its just and equitable value."

In the fourth edition the foregoing passage is left unaltered; but an Appendix is added which contains Ricardo's Plan. It is just possible that Lord King had again been before him. Lord King's famous letter to his leaseholders in March 1811 required them to pay their rents according to old contract, "in the legal gold coin of the realm," guineas or Portugal gold coin, or "by a payment in Bank paper of a sum sufficient to purchase (at the present market price) the weight of standard gold requisite to discharge the rent" (given, *e.g.*, in Cobbett, "Paper Against Gold," Letter XXV., 5th July, 1811, p. 344). His speech in the Lords on 2nd July, 1811, defending the letter, was published as a pamphlet with an appendix where the equivalent payment is described as "uncoined bullion of the same standard,"[1] "the weight of standard gold (if gold coin cannot be easily procured) requisite to discharge his [the tenant's] rent or bond debts according to the spirit of his contracts." (*Speeches*, ed. by Fortescue, 1844, pp. 250, 258.) The idea may have been "in the air": the two men, though quite good friends, make no acknowledgments to each other. King applies the idea to private contracts; Ricardo to the whole system of currency.

The Appendix containing the first mention of Ricardo's Plan was under weigh as early as 17th October, 1811, when Ricardo writes to Malthus (Letters, VIII, IX, X, pp. 17–23) about the latter's article of February 1811 in the *Edinburgh Review* (pp. 339–372), "On the Depreciation of Paper Currency." Malthus had dealt chiefly with the Wheatley-Ricardo theory that a relatively redundant currency is the one cause of an unfavourable balance of trade. The fourth edition of Ricardo's Bullion pamphlet seems to have appeared in January 1812. The Appendix now figuring in it is headed "Observations on some passages in an article in the *Edinburgh Review* on the Depreciation

[1] 916·6 fine.

of Paper Currency; also Suggestions for securing to the Public a Currency as invariable as Gold with a very moderate supply of that metal" (*Works*, MacCulloch's ed., pp. 291 *seq.*). After replying at great length to the criticisms of his general theory, Ricardo comes at last to the problem of the Bank—how is the Bank to obey the Bullion Committee[1] and pay its notes in specie within two years, without causing fresh mischief? The foreign exchanges had been about 15 per cent. against us; the market price of both gold and silver had been about 15 per cent. above the Mint price (Bullion C.'s Report, pp. 1, 3; cf. *Ann. Register*, 1810, Hist., 126). The notes of the Bank, then about £19,000,000 in amount, would therefore need reduction by 15 per cent. to reach par. Ricardo (*l.c.* p. 300) says that the advocates of the Bank, faced with this task, represented that "caprice or ill will" might lead the public to demand guineas for all the small notes; the country banks with their large issues of small notes would "go for gold" to the Bank of England, their natural foster-mother, making it harder for the Bank to gather together the gold necessary for Resumption.

Here Ricardo holds out his Ingot Plan. He would require the Bank to pay at its option all notes above £20 (and no other) "either in specie, in gold standard bars, or in foreign coin (allowance being made for difference in its purity) at the English Mint-value of gold bullion, viz. £3 17*s*. 10½*d*. per [standard] oz., such payments to commence at the period recommended by the Committee." The country banks must go on paying as before in notes of the Bank of England. The Bank might have this privilege of ingot payments for three or four years. Thereafter indeed, if the plan worked well, it might be made permanent.

Under this plan (says Ricardo) the currency could never be depreciated, since "an ounce of standard gold and £3 17*s*. 10½*d*. would be uniformly of the same value." Holders of small notes could only change them by presenting £20 of them at a time, and even then receive only "bullion and not specie." Guineas could only be got when this bullion was coined at the Mint, a process taking time and therefore usefully deterrent. There would no longer be a wasteful alternation of coining and melting. If it is urged that this makes it too easy to get bullion, the answer is that it was just as easy before 1797 and must be under any system, when the case requires gold. "An unfavourable exchange can be corrected only by an exportation of goods, by the

[1] In their Report of 20th June, 1810, not given to the public till September. See *Ann. Register*, 1810, Hist., pp. 127, 129, 151.

transmission of bullion, or by a reduction in the amount of the paper circulation" (*l.c.* 301). The Plan seems "to unite all the advantages of every system of banking which has been hitherto adopted in Europe." In some respects it resembles the plan of the deposit Banks of Amsterdam and Hamburg. Our Bank, while always selling at the Mint price, might, like those banks, have also a fixed purchase price, fixed a little below the Mint price; and it could discourage demands for gold by keeping down the issues of paper.

Unlike these deposit Banks [whose deposits were of bullion], it does not need to have as much bullion as there are credits for bank money. "In our Bank there would be an amount of bank money, under the name of bank-notes, as great as the demands of commerce could require; at the same time there would not be more inactive capital in the Bank coffers than the fund which the Bank should think it necessary to keep in bullion to answer those demands which might occasionally be made upon them."

"The perfection of banking is to enable a country by means of a paper currency (always retaining its standard value) to carry on its circulation with the least possible quantity of coin or bullion; this is just what this plan would effect. And with a silver coinage, on just principles, we should possess the most economical and the most invariable currency in the world" (*l.c.* 301).

It remains to be considered how far this first form of the Ingot Plan differs (*a*) from that in the "Economical and Secure Currency," 1816, (*b*) from that in the Evidence before the Secret Committee of 1819 and in the Committee's Report, (*c*) from the actual law of 1819, and (*d*) from the "Plan for the Establishment of a National Bank" (published 1824).

The Plan attracted little or no attention till it was made the leading subject of a separate pamphlet (1816): "Proposals for an Economical and Secure Currency, with Observations on the Profits of the Bank of England as they regard the Public and the Proprietors of Bank Stock." Ricardo showed his manuscript to Malthus in 1815 (*Letters to Malthus*, 17th October, 1815, pp. 100, 101), and did not convert him all at once.[1] Incidentally Ricardo agrees with Malthus that "on the whole silver would be a better standard than gold, particularly if [as in the Plan] paper only were used. All objections against its greater bulk would be removed." James Mill (writes Ricardo to Malthus, 24th December, 1815) had recommended publication, with the

[1] See *Letters to Malthus*, p. 167, note, for the eventual conversion, 1820.

addition of an Introduction and a division into sections. The tract so improved seems to have appeared at the end of January 1816, some months before the first moving of the Coinage Act, which was not passed till 21st June. It seems to have sold well (*Letters to Malthus*, pp. 108, 110, 112). Its conclusions, in the shape of a long extract, were duly incorporated in the *Principles of Political Economy and Taxation* when that book reached a second edition in 1819. The first had appeared in the spring of 1817, and had a bare hint of the Plan (p. 507). The second had "nothing new in it, as I have not had the courage to recast it," the author writes to J. B. Say, 11th January, 1820 (see *Letters to Malthus*, p. 166). But it certainly lays more emphasis on the Plan.

The proposal in the tract of 1816 is more specific than in the Appendix of 1811, £3 17*s*. being suggested as the purchase price for gold at the Bank and not less than 20 ounces to be taken or given. The figures are arbitrary—"only to elucidate the principle" (*Economical and Secure Currency*, 3rd ed., p. 26; *Works*, p. 216). There are some additional arguments. The Plan would save loss by friction (3rd ed., p. 31; *Works*, p. 407). It may be applied to either gold or silver, whichever is the *de facto* standard; silver is preferable, as steadier in its value (3rd ed., p. 21; *Works*, p. 403). The Bank should have the option in which metal to pay (*ib.* 27; 405). "While a standard is used, we are subject to only such a variation in the value of money as the standard itself is subject to; but against such variation there is no possible remedy" (*ib.* 19; 402). It is a delusion to believe that we can measure by "the mass of commodities" without a specific standard[1] (*ib.* 14, 15; 400, 401).

There is a fresh suggestion; dividend warrants of the National Debt might be made legal tender for taxes, to overcome the rush for money at the time of quarterly payments (*ib.* 38 *seq.*; 411). This is merely an extension to Government of an economy familiar in the City (*ib.*). Ricardo is perfectly aware[2] of the extent to which coin has been already economised[3] by checks,[4] notes and bills (*ib.* 12, 13; 399). He thinks that the use of the precious metals as money was a great step in civilisation, but "it would

[1] Cp. Tabular standard (now Index-number) of Shuckburgh Evelyn, applauded by Wheatley.

[2] So even in Bullion tract, *Works*, p. 282, "daily improvements." Cf. 358, where Bosanquet is justly praised for his description of them.

[3] Because of this, he says, we cannot judge of redundancy of notes by absolute amounts of issues (Bullion, *Works*, p. 282); one note makes many payments.

[4] So spelt in England then, as in America now.

be another improvement to banish them again " in our times of greater enlightenment (*ib.* 24, 25; 404). But there are times when credit collapses and money is wanted; if we supply the want, especially for the smaller payments, by the cheap medium of paper instead of the dear one of gold, we enable the country " to derive all the profit which may be obtained by the productive employment of a capital to that amount " (*ib.* 32; 407), and we avoid the disturbance of the market and the currency. A properly supported paper currency leaves the bullion market unaffected (*ib.* 11, 13; 399, 400).

Ricardo was a witness before the Commons Select Committee on the Usury Laws on 30th April, 1818. As we might expect, he was on principle against those laws, and thought, besides, they were evaded on all hands, the real market rate disregarding them. Asked what was his criterion of the market rate (Qu. 43), he found it in " the prices of public securities and the facility of raising money for short periods," but not in the price of Government securities, where political uncertainties entered (44). Exchequer bills were a better criterion (46). Discounts were not so good, because of the Usury laws (47). Suppose, however, the case where interest is below the legal rate; " the discount given on a bill is a very good criterion of the market rate of interest " (48). " The market rate of interest for money depends on the proportion between the [claims of the] borrower and the lender of capital without reference to the quantity or value of the currency by which the transactions of the country are carried on " (53).

The existence of the Usury laws may explain why the Bank Rate as a controller of the demand for gold does not figure in these discussions of a century ago. The Bank might not (though Government might) go beyond 5 per cent. There is a bare mention of discounts of bills in *Economical and Secure Currency* (3rd ed., p. 38; *Works*, p. 310). We are not in the atmosphere of the modern City of London.

In a letter to MacCulloch (7th April, 1819, p. 22) Ricardo says his Plan " might have slumbered or have been forgotten " but for an article of MacCulloch's in the *Edinburgh Review* (of December 1818) which said more in its favour than its own author had been able to say. This was polite exaggeration; but when Secret Committees of both Houses inquired into the " expediency of the Resumption of Cash Payments at the Period now fixed by Law," viz. 5th of July, 1819, Ricardo, now M.P. for Portarlington, was a principal witness and his Plan was well known to all concerned. He was twice before the Lords' Committee

(24th and 26th March). In a proceeding by question and answer we might look for the raciness of a Platonic dialogue in contrast with the dry seriousness of a treatise on Political Economy. There is not much playfulness; Ricardo still talks like a book. The questions may sometimes have been collusive. We have not, as in the Bullion inquiry of 1810, the advantage of knowing the questioners; we can see for ourselves that they are constantly changing. But (to say nothing of Peel, Canning, and Mackintosh) Grenfell and Huskisson were there;[1] and were likely to bring out the strength of the Plan by leading questions.

Among the witnesses, Alexander Baring came out frankly for the whole Plan; Tooke and Thornton accepted it with reservations.

A brief memorandum[2] had been circulated among the Committee giving the proposal in the following six heads:

"1. That the Bank should be subjected to the Delivery of uncoined Gold or Silver at the Mint Standard and Price, in Exchange for their Notes, instead of the Delivery of Coin.

"2. That the Bank should also be obliged to give their Paper in Exchange for Standard Gold or Silver, at fixed Prices, taken somewhat below the Mint Price.

"3. That the Quantity of Gold or Silver to be so demanded in Exchange for Paper at the Bank, and the Quantity to be so sold to the Bank, should be limited, not to go below a fixed Amount.

"4. That the most perfect Liberty should be given at the same Time to export and import every Description of Bullion.

"5. That the Mint should continue open to the Public for the Coinage of Gold Money.

"6. That the same Privilege of paying Notes in Bullion should either be extended to the Country Banks, or that the Bank of England Notes (their Value being thus secured) should be made a legal Tender."

Ricardo's evidence is a commentary on this text. He would "give the Bank the option of paying its notes on demand in gold bullion or in coin at the Mint price of £3 17*s*. 10½*d*., at the same time requiring of them to purchase standard gold at the price of £3 17*s*. 6*d*. to any extent (reprint of 1844, p. 186, Qu. and Ans. 21). Asked why this is better than simple resumption, he

[1] The list is in *Ann. Register*, 1819, p. [33].

[2] See Baring's evidence, p. 131 (of reprint 1844) 10th March, Question 167. See also ex-Director Haldimand's version of the Plan in Appendix G4, p. 427, of reprint 1844.

says, "it would exempt the Bank from providing a quantity of gold necessary to replace all the smaller notes which are now circulated in London and the Country. Secondly, it would obtain for the Bank, and therefore for the Nation, all the advantages which a capital equal to the amount of all the small notes would produce" (*ib.*, Qu. and Ans. 22). "I would limit the obligation on the part of the Bank to notes of £50, £60, or £600 value, or to a number of small notes amounting in the whole to such a sum. The object I have in view is to regulate the value of currency by having an effective control over its quantity. I have no preference for any sums I have stated, provided they may not be too small" (*ib.* 23).

The requirement (he says) as to purchase of gold is not essential to the Plan; the purchase might be left to Government or the Mint; but his own plan is more economical, even of time (*ib.* 24, Qu. 30), and it makes gold coin unnecessary. "The object of my Plan would be most completely effected by there being no gold coin in circulation" (*ib.* 29). Asked what the saving would be as compared with simple resumption, he admitted there would be as much saving if the Public continued to use small notes for small payments (*ib.* 25), a very uncertain contingency. "If the Bank were to limit their circulation till they had raised the value of their notes to an equality with the value of bullion, it would perhaps be necessary or they might think it prudent to provide a sufficient quantity of coin against the extreme case of their being called upon to replace all the small circulation of the town and country with coin, if Cash Payments be resumed on the old Plan. On my Plan no such provision of either coin or bullion to replace small notes would be necessary. In the first case [simple resumption], an amount of fifteen millions might probably be required, merely for the purpose of answering the smaller notes, and a further reserve of coin for larger notes (*ib.* 27). According to his own plan, "a reserve of three millions would under good management be amply sufficient upon a supposition of twenty-four millions of Bank of England notes in circulation" (*ib.* 28).

The answer to Question 35 is really an emphatic assent to the Coinage Act and the final adoption of gold monometallism in the English system of currency. He had (as has been said) once favoured silver monometallism, but now frankly recants. "My only reason for preferring one metal to another is its being less variable in value. I had at one time thought silver would be less variable; but, having heard that machinery is particu-

larly applicable to the working of silver mines and cannot be applied [1] to increase the quantity of gold, I now think that gold is the more invariable metal" (*ib.* 36). But if it had been desired, his Plan could have been worked out with silver as the standard (*ib.* 42).

Asked (*ib.* 45) if the Mint (*i. e.* the Government and not the Bank) would not be the better agent for the supply of gold coin when demanded, the Mint to keep a stock of coin ready, he agreed this might be an improvement.

When the questioner (probably Grenfell) asked if the Bank would not gain too much by the resumption of cash payments on his Plan, providing fifteen millions less of gold, he answered that their gain was also a public gain; to buy gold unnecessarily is to waste the goods that buy it; we might as well throw them into the sea! The gold would be "a dead stock without advantage or profit" (*ib.* 56 to 62).[2]

The question before the Committee was not abstract; it was what should be done then and there. Accordingly the second day's examination (26th March) begins with the question of the moment: Is there to be Resumption as early as the date fixed by the last act of suspension [28th May, 1818], the 5th of July in the current year? Ricardo thinks the way already "in a great degree" prepared, and the date might be kept (p. 196, Qu. 77). But payment of the notes should begin at the market price of gold [say four pounds in paper for an ounce of standard gold], and come down, by stated steps of 6*d.* at stated periods, to the Mint price of £3 17*s.* 10½*d.* (Qu. 78, 119). What the witness most wants to avoid is a relapse of the Bank into over-issues and greater depreciation than the present. Once the Bank begins with the market price, whether it goes on with the scale or not, and whether or not it keeps a fixed relation between the price of sale and the price of purchase, we have a security against relapse, and an opportunity of parliamentary control. The Bank might be allowed to go on faster than the scale, but not to go back at all (78, 79, 82, 90, 116, 131). The descent to the Mint price might take a year, but might quite well be made in January 1820 (83). The fall in prices of goods, keeping pace with the descending price of gold, would be 4 per cent., by no means the greatest change within a space of six months, in our last eight years' experience (81, 84, 124).

[1] A hundred years ago.

[2] There follows an interesting theoretical discussion on Capital and Credit (*ib.* 63–76). So, later, on Speculation (97 *sq.*).

The prices of goods fall quite as soon, from a reduction of paper, as the price of gold falls. If the response of both turns out to be less in proportion than the reduction of the paper, the paper will need a less reduction (124). The effect on present trade of the existence of the Committee has been a suspension of commercial transactions till the result should be known; this suspension is equal to a certain contraction of issues. But whether prices will rise or not after the Committee's decision will depend on the nature of that decision (129). What if the Bank reduce too far, say by another three millions?—Bullion and goods might then fall 8 or 10 per cent.; but such a reduction is impossible if the Mint is open and the Bank bound to pay notes for gold at £3 17*s*. 6*d*. (125).

Would not the Bank raise the price of bullion [against itself] by laying up, as it might conceivably do, a considerable store of gold for the day of resumption?—If the Bank know the true principles of currency [as in the Plan] it will see there is no need for large purchases (128). So too a run on the Bank, as being the only market for bullion at a fixed price, would be "limited by the amount of their notes, because it is with their notes only that the bullion could be purchased. The diminution of the quantity of bank-notes would increase their value and would consequently stop the demand for bullion. In this respect we should be in the same situation that we were previous to 1797; the only difference would be that we could then demand Coin, and now we should demand Bullion; as articles of commerce they may be considered as the same" (135). In case of a run, "bullion could be drawn out of the Bank in a shorter space of time than an equal amount of coin, as there would be no necessity for counting" (136).

Ricardo admits that there is no system of banking which can provide against a panic, and that demands for bullion could conceivably come upon the Bank so fast and furiously that the safeguard of diminishing the notes could not be adopted in time; but we should be no worse off than in 1797; and there would be less eagerness to demand bullion than coin (137, 138).

A country which adopts the new Plan is *pro tanto* richer than one which does not (92). The question is asked, however, whether, if all or most countries adopted it, there would not be a less demand for bullion all over the world, and therefore a lower value of the currency, and therefore a range of higher prices. Ricardo thinks that at first the value of gold would be

lowered as stated, but not ultimately, for its value depends on its cost, and that is unaffected by the Plan (93).

We may close the Evidence at this point. It will be noted that the only order followed in the questions seems to have been the order in which the questioners caught the chairman's eye.

Ricardo had converted the Committee. Their second report proposes his Plan with very few changes.[1] The resumption is to be in bullion, on 1st December, 1819, or at latest 1st February, 1820. The notes to be so paid must amount to not less than the value of 60 ounces standard, on a scale beginning with £4 1*s.* per oz., descending on 1st November, 1820, to £3 19*s.* 6*d.*, not again to be raised, and to the Mint price £3 17*s.* 10½*d.* on 1st May, 1821, though then in amounts equal to at least 30 ounces. For two years after this last date, the payment is to be in bullion only; and Parliament is to give the Bank a year's notice, on a date not sooner than 1st May, 1822, when it requires payment to be in coin. The Committee recommend the Plan as a temporary measure, as, in fact, the best present means for restoring the currency to its old standard of metallic value at least as soon as the dates given (p. 20). They speak hesitatingly about the future of small notes, in respect of their liability to be counterfeited (p. 21). They recommend the repeal of the laws against melting and exportation of coin. They "see no ground to apprehend that the present regulations respecting the Silver coinage, so long as such silver coin shall not be a legal tender beyond the amount of forty shillings and the Mint shall not be open to the public for the coinage of that metal, will oppose any obstacle to the successful execution of the Plan which they have ventured to recommend" (23).

Peel moved[2] the Resolutions for Resumption in accordance with this report; and, with some changes, they were duly embodied in a Bill, and passed into law on 2nd July, 1819. The parts of the text most important for our present purpose will be found below.[3] The changes are for the most part in the direction of leniency. Payments in bullion of £4 1*s.* are to begin in October 1820 instead of February, and payments at the Mint price on May 1823 instead of May 1821. The Committee's steps are kept; but the limit of amount is made 60 throughout instead of 60 for the first two and 30 ounces for the last step.

[1] See below, Appendix I.

[2] On 24th May, in the speech which defined the Pound as a certain weight of gold bullion. See Smart's *Economic Annals*, p. 679, 1910.

[3] Appendix II.

The Plan was adopted as a useful brake before Resumption.[1] To Ricardo it was much more: "I never wish to see any other [than a paper system instead of coin] established in this country" (To Sinclair in *Letters to Trower*, 11th May, 1820, p. 110). Sheffield hears that there is general bewilderment, especially in the West of England; for himself he thinks that not one person in ten thousand will comprehend the new measure (*Life of Colchester*, Vol. III. p. 77, date 19th May, 1819). Tooke says in his Letter to Grenville,[2] 1829, that between the passing of the Act and August 1820 "not one of the ingots provided by the Bank and which the holders of bank-notes were entitled to demand at the rate of £4 2*s*. per ounce [*sic*] was called for as a matter of business, although it is said that one or two were applied for as a matter of curiosity." He believes "Peel's Bill" was wholly inoperative in producing a contraction of the paper circulation. Yet the Bank itself had not been entirely unfavourable.[3] In a "representation" addressed to the Chancellor of the Exchequer on 20th May, 1819 (printed as an Appendix to Ricardo's tract *On Protection to Agriculture*, 1822), the Directors deal fairly with the whole measure, including the Ingot Plan, and remind the Government that they "have already submitted to the House of Lords the expediency of the Bank paying its notes in bullion at the market price of the day with a view of seeing how far favourable commercial balances may operate in restoring the former order of things, of which they might take advantage; and with a similar view they have proposed that Government should repay the Bank a considerable part of the sums that have been advanced upon Exchequer bills." (R.'s *Works*, p. 496.) There is no sign that they did not give the Plan a fair trial. What they disliked was the new responsibility (as they thought it) thrown on them to take care of the national currency and deal in bullion when they conceived their "peculiar and appropriate duty" to be the management of their Banking establishment and the National Debt (*ib.*).

Ricardo had reckoned the Act "the triumph of science and truth in the great councils of the Nation," and his satisfaction (Letter to Trower, July 8, 1819, p. 78) was increased by the course of the bullion market and exchanges. "Gold is, I believe, at £3 18*s*. per ounce, silver at the Mint price, and the exchanges very nearly at par. The best friends of the measures lately

[1] Second Report of Committee, pp. 15, 16.

[2] *On the Effects ascribed to the Resumption of Cash Payments on the value of the Currency* (Murray), 1829, pp. 8, 15.

[3] Compare *Colchester*, l.c., p. 76.

adopted could not have anticipated less pressure than what has been hitherto experienced." "Our opponents, including Lauderdale, can only say we have had great good luck and it cannot last" (*ib.*). "I do not deny that the public has suffered much pressure from the limitation of circulation," but this had begun before the meeting of the Committee. (To Sinclair as *supra*, 110). "It was without any legislation that the currency from 1813 to 1819 became an increased value [*sic*] and within 5 per cent. of the value of gold; it was in this state of things and not with a currency depreciated 30 per cent. that I advised a recurrence to the old standard" (To Wheatley, 18th September, 1821, in the *Letters to Trower*, p. 160). "Every ill which befalls the country is by some ascribed to Peel's Bill, and Peel's Bill is as invariably ascribed to me. The whole fall in the value of corn and cattle is by such persons said to be merely nominal; these things, they say, have not in fact fallen—it is money which has risen; they will not hear of a variation in the value of money of 10 per cent., which I am very willing to allow them, nor will they listen to my defence of myself against their unjust accusation. I proposed a scheme by the adoption of which there would not have been a demand for one ounce of gold, either on the part of the Bank or of anyone else, and another is adopted by which both the Bank and individuals are obliged to demand a great quantity of gold, and I am held responsible for the consequences. If I had been a bank director, and had had the management of this currency question, I maintain that I could have reverted to a metallic standard by raising money (only) 5 per cent.; I do not say that having a metallic standard I could protect it from the usual fluctuations to which standards have at all times been subject" (To Trower, 11th December, 1821, pp. 168–9.).

The Tract *On Protection to Agriculture*, written early in 1822, after the author had himself sat on an Agricultural Committee, contains a section (V.) where he makes his public and probably best known defence (*Works*, p. 455 *seq.*): "On the Effect produced on the Price of Corn by Mr. Peel's Bill for restoring the Ancient Standard." He gives a full sketch of the fortunes of the Plan, with less than his usual urbanity. He makes light of the Bank's fear of forgeries as an excuse for its proceedings in 1821; and he agrees with Tooke in thinking the said proceedings have added 5 per cent. to the value of the currency, making what we should now call an "appreciation" of 10 instead of 5 per cent. to be faced on Resumption (468–71, cf. 490–1).

In private he was by turns calm and angry. "If Cobbett's

recommendation [' There is absolutely no safety but in hoarding '] should again endanger the safety of the Bank of England in consequence of an extensive practice of hoarding sovereigns, which I by no means apprehend, it might become necessary to adopt the Ingot Plan of payment once more. I should, however, be very sorry if the present system were not persevered in as long as it was practicable." Huskisson's influence will be good (To Trower, 5th March, 1822, p. 182).

To MacCulloch he had written on the subject at greater length, for MacCulloch had taken up his cause much more warmly than his other correspondents. He writes to MacCulloch on 8th May, 1819,[1] that the Committee had changed his Plan (1) in assigning the bars to the Mint instead of the Bank, (2) in fixing the Resumption in 1823 instead of 1820. " Perhaps in both instances they have done right, for, the Bank persisting in the most determined opposition to them, they were under the necessity of having the bullion stamped that it might be legally called money of a large denomination, and that the Bank might not raise a clamour against them for having imposed upon that corporation the obligation of paying in bullion, from which they said their charter protected them." They had also to encounter popular prejudice. It is possible if the Plan works well for the next five years that the Bank themselves will be in favour of it as a permanent system. On 22nd June, 1819,[2] he writes again to MacCulloch. " There is a disposition among many of the best informed of the two Committees to adopt my Plan of currency as a permanent regulation," but they think it will have better support after a few years' trial. Ricardo agrees; and only objects to the Bill just passed because it will oblige the Bank to buy gold and prepare for payments in coin that may never be necessary. Later, in the letter of 3rd January, 1822,[3] he refers to the charge of Cobbett and others that he had wrongly described the effects of the Resumption as only altering prices 4 or 5 per cent. They forget he was speaking of his own Plan, which would not have called for the use of gold; as it is, the Bank have made large purchases, and so made it harder to effect Resumption. We " had a right to expect that the Bank would make no preparation for specie payments till 1822, one year before the period fixed; and I for one flattered myself that, if from 1819 to 1822 it were found that the system of bullion payments was a safe and easy one, specie payments would be still further deferred; but the Bank had strong prejudices against

[1] *Letters to MacCulloch*, p. 27. [2] *l.c.* pp. 30, 31. [3] *l.c.* p. 119.

the Plan, and immediately commenced purchasing bullion and coining money, and were absolutely forced to come to the legislature for permission last year to pay in specie, as they had accumulated a large quantity of coin." Parliament could hardly deny them, for the mischief had been done. Tooke [1] quotes the remark of a bank director that the Bank was quite passive, simply taking what was brought to it.

Parliament did not refuse. By the Act of 7th May, 1821,[2] "making further provision for the gradual resumption of payments in cash by the Bank of England," the Bank was allowed to pay in coin or in ingots as it pleased. Payment in ingots or bars of 60 ounces was permitted till the 1st day of May, 1823. To all intents the bars and ingots pass out of the currency system, unless it be in the credit entry of the Issue Department, "Gold coin and bullion."

The Bank resumed cash payments in 1821, beginning with the One Pound and Two Pound notes, which the Plan would not have made payable in metal at all.

MacCulloch writes in his article "Money" in the Supplement to the *Encyclopædia Britannica*,[3] that it was just those small notes that wrecked the scheme; they were poorly designed and engraved, therefore easily forged. "In practice Mr. Ricardo's plan worked extremely well. While the over-issue of paper was effectually prevented, only a very few bars were demanded from the Bank, and it was generally supposed that, instead of its operation being thus prematurely checked [by the proceedings of the Bank in 1821], it would have been rendered perpetual, and the farther circulation of gold coins prevented."

It is not clear why the temptation to forgery should be increased by this new kind of inconvertibility; forgery had increased under Restriction in any case (MacCulloch, *l.c.*, 510). Ricardo writes to Trower on 2nd March, 1821: "I am sorry that no security can be found against the forging of bank-notes; the recalling of the one-pound notes cannot fail to enhance the value of the currency." As a matter of fact the Society of Arts had held an inquiry of experts on the Forgery of Bank Notes, in 1819, the very year of Peel's Act. Its Report declared the feasibility of almost unforgeable notes (Report, Adelphi, 1819, p. 10), such as the Irish notes had indeed proved to be (Resump-

[1] Tooke, *Prices*, ii. 100, 108.

[2] See Appendix III. to this article. The privilege of Legal Tender was not expressly given till 1833. See *infra* (Appendix IV.).

[3] Supplement (to the 4th and 5th eds.), publ. 1822. See *Letters to Malthus*, p. 125. The quotations here are from the reissue of 1824, Vol. V. pp. 508–512.

tion Committee, Second Report, p. 21). Lauderdale's view that the Plan might tempt to the forging of silver coin was not taken very seriously in view of the limit of 40*s*. (Lauderdale, *Protests of the Lords*, 1819, p. 16), any more than a later fancy (1826) that the substitution of sovereigns for small notes would increase highway robbery.[1]

Yet MacCulloch (Suppl. 510) plainly considers that it was the forgery that arrested the Plan; he points to the general belief that forgery could best be prevented by the suppression of the Bank's small notes. He would himself be content if the Bank took care to improve its notes: "If this were done and the notes of the country banks made payable in Bank of England paper, and the paper of the Bank of England in gold bars exclusively, the issue of gold coin would be quite superfluous." [2] But neither in 1821 nor in 1826 was the public sufficiently educated to think of bars as part of their system of currency.

The judgment of Professor Foxwell, the most learned of our living authorities on currency, is that "much grave currency trouble might have been spared to our own times if the Bank had given a more favourable consideration to the currency proposals of Alexander Baring and Ricardo. But here again the directors might plead that they were hardly free agents; the political situation was dominated by Cobbett, whose hostility to the scheme is well known." [3]

Cobbett (*Pol. Reg.*, May 20, 1820, addressed to Baring) writes tauntingly: "You intended to make bullion-payments perpetual instead of coin, a plan of your Honourable Friend, Mr. Ricardo, for which the country was infinitely indebted to him" (p. 693). "All that it can do is to make the misery perpetual. That is all" (699). "Your project is essentially a perpetual paper-project" (*ibid.*). "You disclaim the honour of having invented this scheme, and generously ascribe it to your Honourable Friend, Mr. Ricardo," the author of "another plan" to pay off the Debt, disliked by Cobbett (700).

The Bank, though not a representative institution, was no doubt too often inclined to follow where it ought to have led; but it might be thought more sensitive to the opinion of the

[1] *Thirty Years' Peace* (1849), I. 362 (Book II. ch. viii.). See Malachi Malagrowther Letter II. on the Act of 1826.

[2] *Edinburgh Review*, "Fluctuations in the Supply and Value of Money," February 1826, p. 290. The authorship is assumed.

[3] Preface to Andreades' *History of the Bank of England* (King, 1909), p. xxii. The History makes bare mention of the Plan, pp. 238, 239.

City than of the unenfranchised multitude which Cobbett professed to lead.

The Plan did not at least founder on details. Yet whether the limit (60 ounces) was too low is a question of detail that comes near to being a question of principle; the aim of the Plan is to avoid small payments. MacCulloch thinks 500 or even 1000 ounces should have been the limit. The whole demand would then have been from " the bullion merchants, a class of men remarkable for their shrewdness and generally possessed of large capitals " (*Encycl. Brit.*, l.c. p. 509). This would have confirmed the view of Mr. Page (Evidence before Resumption Committee, p. 158), that the Plan left the rich with the gold and the poor with the silver. Mr. J. L. Goldsmid, of Mocatta and Goldsmid (Evidence, p. 258), says that the usual bars of silver are of £150 value, of gold £700. There is little regard paid by the Committees either of 1810 or of 1819 to " industrial uses," for which bars would usually be smaller. The commonest size in the twentieth century would be from 300 to 500 ounces for international business; Refineries could produce them at any size wanted for industry.

It is unfortunate but not surprising that neither at the Bank nor at the Royal Mint nor at the British Museum is there any sample of the Ricardian bars. Sixty ounces of gold, with no " artistic merit " superadded, are a costly curiosity.

The Ingot Plan still remains to be tried as Ricardo drafted it. In his posthumous " Plan for the Establishment of a National Bank," 1824, his 12th Regulation provides that the State Commissioners (who in the scheme are an Issue Department, entirely superseding the Bank) shall at all times give notes for amounts of gold over 100 ounces at £3 17*s*. 6*d*., and sell gold at £3 17*s*. 9*d*., increasing their issues when the price inclines to £3 17*s*. 6*d*. and lessening them when it inclines to £3 17*s*. 9*d*. The transactions would be very few. There ought to be a store of gold " occasionally to correct the exchanges with foreign countries, by the exportation of gold as well as by the reduction of the amount of paper " (*Works*, pp. 508, 510, 511). The 13th regulation obliges the Commissioners to pay their notes on demand in gold coin (p. 511). London is to control the provinces, where there is to be no obligation to pay gold except through London and at the purchaser's expense (p. 510). " If the circulation of London should be redundant, it will show itself by the increased price of bullion and the fall in the foreign exchanges, precisely as a redundancy is now shown," and the remedy is, as now, a reduction in the notes,

either "by the sale of Exchequer bills in the market and the cancelling of the paper money which is obtained for them, or by giving gold in exchange for the paper, cancelling the paper as before and exporting the gold." The exporting will be done through the merchants, "who never fail to find gold the most profitable remittance when the paper money is redundant." In the contrary case, when London has too small a circulation, the remedy is either to buy Government securities with new notes, or to import gold bullion with new notes, created *ad hoc*, this last again through the merchants, "as gold never fails to be a profitable article of import when the amount of currency is deficient" (*ib.* p. 512).

Ricardo seems to confess that the English fondness for gold coin has been too strong for him. In his ideal Bank, coin is reduced to a minimum, but it is still there; and the ingots are not what they were even in 1819. They left no successors. Such makeshifts as the Californian ingots or the rough gold pieces of Trinidad, British Columbia, or Adelaide are no parallel. They are at the bottom of the scale, not at the top of it.[1] They represent a half-grown coinage, not something higher than coinage itself. Ricardo had no idea of making his ingots masquerade as coins, "money of a larger denomination," in the common meaning of the words. His complete Plan was to be the euthanasia of metal currency.

There was never a total oblivion of the Plan. *Laudatur et alget.* John Fullarton (*Regulation of the Currency*, 1844) speaks of it with respect, though he thinks his own on the same lines is better. He fancies in civil war or invasion the Plan would leave us "without any valuable currency whatever" (*l.c.* 219). But Ricardo did not propose to send all gold out of the country. Andrew Coventry, speaking before the Royal Society of Edinburgh in January 1870 on "*A Method of Economising our Currency*,"[2] did not indeed adopt the Plan *simpliciter* as his method, but illustrated his own by means of Ricardo's, and suggested that "bars of 20 sovereigns' weight and upwards might safely supplant sovereigns altogether, and then all gold coinage would cease, to the great profit of the country." "It is not new to propose the use of gold bars. We owe it to Mr. Ricardo."

Professor Marshall's Symmetallism, expounded before the

[1] Sycee silver ingots and trade bars are indeed not used in mere default of coin; but they are not part of a system of money.

[2] Pamphlet, Edinburgh, Douglas, 1870, pp. 5, 6, 10

Gold and Silver Commission 16th January, 1888,[1] was expressly based on Ricardo's Economical and Secure Currency. Bimetallists[2] had suggested legal tender coins composed of an amalgam of gold and silver. Professor Marshall would have paper currency exchangeable not for gold but for gold and silver, and not for coins but in Ricardian fashion for ingots. One Pound in paper would be exchanged for 56½ (instead of 113) grains of gold and a fixed number, say 20 ounces, of silver to make up the other half of the equivalent, the weight being best stated in grammes as internationally familiar. A gold bar of 100 grammes [say 3¼ ounces] would be paired with a silver bar of 2000 [say 70 ounces]. The currency of the country would then consist of notes on this metallic basis; and the reason of the case is pithily put: "In modern times the judge is not required to be a strong man; all that is necessary is that he should represent force" (Evidence, 1888, p. 23, Ans. 9841).

But since 1888 political and industrial changes have made even this higher form of bimetallism unlikely of acceptance. It cannot dispense with adjustments at discretion of the authorities; and these are always suspect. Ricardo's monometallic plan has the merit of simplicity. For that and other reasons it appeared to meet the special currency difficulties of the trade between England and India; and a new (if it be a new) school of currency has arisen from the attempt to fit the Plan to this particular case of what Professor Marshall would probably call a quasi-foreign trade.

A consistent adhesion to the Ingot Plan would lay the foundations for the Gold Exchange Standard, implicit in it. Mr. A. M. Lindsay (of the Bank of Bengal) from 1876 onwards pleaded for this Standard. He spoke of it in one tract as "Ricardo's Exchange Remedy" (1892). In his scheme, notes are to be "reconvertible not into gold in the shape of coins but into ingots on demand at the same rate" to be used in the trade between England and India (*A Gold Standard without a Gold Coinage in England and India*, Edinburgh, Douglas, 1879, p. 12). Early in the twentieth century the Gold Exchange Standard was powerfully advocated by a group of young economists: Kemmerer, Keynes, Findlay Shirras, Hawtrey. They revived the Ingot Plan; and the War revived the vanishing importance of paper money,

[1] See also his *Money Credit and Commerce* (1923, pp. 64-67), where much of the text of the Evidence is reprinted.

[2] As long ago as Steuart, *Pol. Ec.*, Vol. V. p. 11, who rejects the idea as too philosophical!

by introducing the Treasury as a new Issue Department, dispensing an immense note circulation. In the winding up of the Treasury notes Ricardo's help, a century after his death, may be of some use, for our problems are still his problems, with their factors much magnified. The English people in the mass are better instructed economically than a hundred years ago; and this time they may prove to have been really weaned from their fondness for gold coins, and a dear currency.

J. BONAR

APPENDIX I

THE PLAN AS GIVEN BY THE RESUMPTION COMMITTEE, 1819, IN ITS SECOND REPORT

(Reprint, 1844, pp. 18–20.)

IN order to bring before the view of the House with more distinctness the whole of the Plan which the Committee beg leave to recommend to their consideration, they will state shortly the different parts of which it consists:

1. That provision should be made by Parliament for a repayment of the Debt of Government to the Bank to a considerable amount, and that a part of that repayment should take place some time antecedent to the first period which may be fixed for the commencement of bullion payments by the Bank;

2. That from and after the 1st of Dec. 1819, or at latest the 1st of January 1820, the Bank of England shall be required to pay its notes in gold bullion duly assayed and stamped in His Majesty's Mint, if demanded, in sums of not less than the value of 60 ounces, at the price of £4 1*s*. per ounce of standard bullion; that on the 1st of Nov. 1820, or at such other period as may be fixed, the price shall be reduced to £3 19*s*. 6*d*. unless the Bank shall have previously reduced it to that rate, it being always understood that the price when once lowered, shall not again be raised by the Bank; and that on the 1st of May 1821, the Bank shall pay its notes, if demanded, in gold bullion, in sums of not less than the value of 30 ounces, at the price of £3 17*s*. 10½*d*. per ounce of standard bullion.

3. That a weekly account of the average amount of notes in circulation during the preceding week shall be transmitted to the Privy Council, and a quarterly account of the average amount of notes in circulation during the preceding quarter shall be published in the *London Gazette*.

4. That for two years, from and after the 1st of May 1821, the Bank shall pay its notes in gold bullion only at the Mint price; and that whenever Parliament shall think proper to require the Bank to pay its notes in coin, notice thereof shall be given to the Bank one year beforehand, such notice not to be given before the 1st of May 1822.

Should Parliament think proper to adopt this Plan for the regulation of the Bank of England, it is evident that provisions must be made for applying the same principle to the Bank of Ireland.

APPENDIX II

Resumption Act, 1819

(Statutes at large, Vol. 25, 57 Geo. III. to 59 Geo. III., 1819, Geo. III. pp. 725–729.)

Caput 49. An Act to continue the restrictions contained in several Acts on payments in cash by the Bank of England until the 1st day of May 1823, and to provide for the gradual resumption of such payments; and to permit the exportation of gold and silver. [2nd July 1819.]

I. Whereas an Act was passed in the Parliament of Great Britain in the 37th year of the reign of His present Majesty, caput 45, intituled An Act for confirming and continuing for a limited time the Restriction contained in the Minute of Council of the 26th of Feb. 1797 on payments of Cash by the Bank, which Act was continued under certain regulations and restrictions by another Act made in the said Parliament (c. 91.) . . . (other Acts enumerated).

And, whereas it is expedient that the restrictions on payments in Cash by the said Bank should be continued beyond the time to which such restrictions are at present limited and that a definite period should be fixed for the termination of such restrictions and that preparatory measures should be taken with a view to facilitate and ensure on the arrival of that period the payment of the promissory notes of the Bank of England in the Legal Coin of the Realm, be it therefore enacted . . . (that the present several provisions be continued to 1st May [1823] and thereafter cease and determine).

Between Feb. 1 and Oct. 1, 1820, Bank shall pay in standard gold for notes tendered to an amount not less than the value of 60 ounces calculated at the rate of £4 1*s.* per ounce.

II. Provided always and be it further enacted that at any time on or after the 1st day of Feb. 1820 and before the 1st day of Oct. 1820, whenever any person shall tender to the Governor and Company of the Bank of England any Note or Notes of the said Governor and Company payable on demand to an amount not less than the Price or Value of 60 ounces of gold, calculated at the rate of £4 1*s.* for every ounce of gold, and shall require such note or notes to be paid in standard gold, the Governor and Company of the said Bank of England shall upon demand pay and deliver to the person tendering such notes such quantity of gold of the fineness declared by law to be the standard of and for the lawful gold coin of the realm, the same having been first assayed and stamped at His Majesty's Mint in London, as shall at the said rate of £4 1*s.* for every ounce of such gold be equal to the Amount of the Notes so presented for payment.

Between Oct. 1 1820, and May 1, 1821, such payments shall be made in gold calculated after the rate of £3 19*s.* 6*d.* per ounce.

III. Provided also and be it further enacted that at any time on or after the 1st day of Oct. 1820 and before the 1st day of May 1821, whenever any person shall tender to the Governor and Company of the Bank of England any Note or Notes of the said Governor and Company payable on demand to an amount not less than the Price or Value of 60 ounces of gold calculated after the rate of £3 19*s.* 6*d.* for every ounce of gold and shall require such Note or Notes to be paid in standard gold, the Governor and Company of the said Bank of England shall upon demand pay and deliver to the said person tendering such notes such quantity of gold of the fineness declared by law to be the

standard of and for the lawful coin of the realm, the same having been first assayed and stamped at His Majesty's Mint in London, as shall at the said rate of £3 19*s*. 6*d*. for every ounce of such gold be equal to the Amount of Notes so presented for payment.

Between May 1, 1821, and May 1, 1823, such payments shall be made in gold calculated after the rate of £3 17*s*. 10½*d*.

IV. Text, *mutatis mutandis*, as for III.

But the Bank may between Feb. 1, and Oct. 1, 1820, make payments at any rate less than £4 1*s*., and not less than £3 19*s*. 6*d*. per ounce; and between Oct. 1, 1820, and May 1, 1821, may pay at a rate less than £3 19*s*. 6*d*. and not less than £3 17*s*. 10½*d*.

V. And be it further enacted that it shall and may be lawful for the Governor and Company of the said Bank of England at any time between the said 1st day of Feb. 1820 and the said 1st day of Oct. 1820 to pay and deliver to any person who shall present Notes of the said Governor and Company of the said Bank such quantity of gold, of such fineness as aforesaid and assayed and stamped as aforesaid, as shall be equal to the Amount of the Notes so presented at any rate less than £4 1*s*. and not less than £3 19*s*. 6*d*. for every ounce of such gold; and in like manner at any time between the 1st day of Oct. 1820 and the 1st day of May 1821 to pay and deliver such gold at any rate less than £3 19*s*. 6*d*. and not less than £3 17*s*. 10½*d*. for every ounce of such gold; provided always that the Governor and Company of the said Bank of England shall give three days' notice in the *London Gazette* of their intention to make such payments after such rates, specifying the rates at which such payments shall be made, and provided also that it shall not be lawful for the Governor and Company of the said Bank of England, at any time after making such payments at the rates mentioned in any such notice, to pay or deliver any such gold at a rate higher than the rate mentioned in any such notice; anything in this Act to the contrary notwithstanding.

Such payments may be made in ingots of 60 ounces.

VI. Provided also and be it enacted that the Governor and Council of the Bank of England shall not be required or compelled to pay or deliver any such gold except in Ingots or Bars of the weight of 60 ounces each assayed and stamped as aforesaid; anything herein before contained to the contrary notwithstanding.

Fractional sums under 40*s*. to be paid in silver coin.

VII. Provided also and be it enacted that it shall and may be lawful for the Governor and Company of the said Bank of England to pay any fraction less than 40*s*. of any sum so demanded above the value of 60 ounces in the lawful silver coin of the realm.

Bank may pay in coin on or after May 21 [*sic*], 1822.

VIII. Provided also and be it further enacted that the Governor and Company of the Bank of England if they shall see fit may at any time on or after the 1st day of May 1822 pay or exchange the lawful coin of the realm for any note or notes of the said Governor and Company payable on demand; any provisions in the said before-recited Acts or in this Act to the Contrary notwithstanding.

Bank to deliver to Privy Council weekly accounts of average amount of their notes in circulation, and also take and publish in the *London Gazette* as Quarterly Account.

IX. [Sufficiently given in the margin. It may be remarked that "bills" are included with notes.]

X. "And whereas the laws now in force against melting and exporting the gold and silver coin of the realm have been found ineffectual and it is expedient that the traffic in gold and silver bullion should be unrestrained,"[1] be it therefore enacted that from and after the passing of this Act it shall and may be lawful for any person or persons to export the gold or silver coin of the realm to parts beyond the sea and also to melt the gold or silver coin of the realm and to manufacture or export or otherwise dispose of the gold or silver bullion produced thereby; and no person who shall export or melt such gold or silver coin or who shall manufacture export or dispose of such bullion shall be subject to any restriction forfeiture pain penalty incapacity or disability whatever for or in respect of such melting manufacturing or exporting the same respectively; anything in any Act or Acts in force in Great Britain or Ireland to the contrary thereof in any wise notwithstanding. Gold and silver may be exported and melted.

[XI. repeals old Acts on the subject. XII and XIII continue such parts of the Acts against counterfeiting and clipping as do not involve the unlawfulness of making bullion from coin.]

P. 962, caput 99 (12th July 1819) applies the Act to Ireland *mutatis mutandis*. The dates are to be at least a month later. The Gazette is to be the *Dublin Gazette*; the assay is to be of the Assay Office, Dublin, or at the Mint, London. Essentials are preserved, with some little differences in order of sections.

APPENDIX III

Act of Resumption, 1821

(Statutes at large, Vol. 26, 1st and 2nd Geo. IV. pp. 319, 320.)

Caput 26. An Act for making further provision for the gradual resumption of payments in cash by the Bank of England. (7th May 1821.)

[Section I. recites the Act of 1819, IV. and VIII., and goes on to say: that from and after 1st May 1821 the Bank may pay in the current and lawful coin of the realm, if they shall see fit, "any provisions in the said recited Act or any Act of Parliament therein recited or in this present Act to the contrary notwithstanding."

Margin: "Bank of England may pay notes, etc., in coin."]

II. Provided always and be it further enacted that in all cases where the Governor and Company of the Bank of England shall propose or offer to pay any Note or Notes of the said Governor and Company, or any other debt or demand whatsoever, in the current and lawful coin of the realm, it shall not be competent to the bearer or bearers of such note or notes or to the person or persons to whom any such debt or demand shall be due or payable to demand payment thereof in ingots or bars of gold as directed and provided by the so recited Act, anything in the said recited Act contained to the contrary notwithstanding. Persons offered to be paid in coin not allowed to demand payment in ingots.

[1] Inverted commas in original.

Persons not offered to be paid in coin not deprived of their right to payment in ingots.

III. Provided also and be it further enacted that nothing in this Act contained shall extend or be construed to extend to deprive the bearer or bearers of any note or notes of the said Governor and Company payable on demand, and which the said Governor and Company shall not propose or offer to pay on demand in the current and lawful coin of the realm, to demand and require payment thereof at any time before the 1st day of May 1823 in ingots or bars of standard gold of 60 ounces each, calculated after the rate of £3 17*s*. 10½*d*. for every ounce of gold, as directed and provided by the said recited Act, anything herein contained to the contrary thereof in any wise notwithstanding.

[IV. repeals part of XIII. of Act of 1819, as to clippings.

V. gives Bank option of paying its own [larger] notes in one.pound notes or sovereigns as desired.

Margin: "Bank may pay in One Pound Notes or in Gold."]

Act 1821, caput 27, extends the above (*mutatis mutandis*) to Ireland.

APPENDIX IV

Act of 1833

(Statutes at large, 3rd and 4th Wm. IV. to 5th and 6th Wm. IV., Vol. 32, pp. 502–5.)

Caput 98. An Act for giving to the Corporation of the Governor and Company of the Bank of England certain privileges for a limited period under certain conditions (29th Aug. 1833).

Bank Notes to be legal tender except at the Bank and Branch Banks.

VI. Be it further enacted that from and after the 1st day of August 1834, unless and until Parliament shall otherwise direct, a Tender of a Note or Notes of the Governor and Company of the Bank of England expressed to be payable to Bearer on demand shall be a legal Tender to the amount expressed in such Note or Notes and shall be taken to be valid as a Tender to such amount for all sums above £5 on all occasions on which any Tender of Money may be legally made, so long as the Bank of England shall continue to pay on Demand their said Notes in legal Coin: Provided always that no such Note or Notes shall be deemed a legal Tender Payment by the Governor and Company of the Bank of England or any Branch Bank of the said Governor and Company; but the said Governor and Company are not to become liable or to be required to pay and satisfy at any Branch Bank of the said Governor and Company any Note or Notes of the said Governor and Company, not made specially payable at such Branch Bank, but the said Governor and Company shall be liable to pay and satisfy at the Bank of England in London all Notes of the said Governor and Company or of any Branch thereof.

P. 503 [*VII. Bills not having more than 3 months to run shall* not be subject to Usury laws.]

THE CONTROLLING FACTOR IN TRADE CYCLES[1]

Introductory Note

At the Fourth Session of the International Labour Conference held at Geneva in the autumn of 1922, a resolution was adopted to the effect that the International Labour Office should be instructed to make "a special study of the problem of crises of unemployment, their recurrence, and the fluctuations of economic activity," with a view to combating the effects of these phenomena. During the discussion of this resolution the hope was expressed that the inquiry to be undertaken would reveal precise points which might subsequently be referred to a competent international body[2] for solution and definite action. Judging from the temper of the Conference, there can be no doubt that if it were possible to secure a general consensus of opinion on any measure or measures capable of eliminating the causes of trade depressions, the whole moral weight of the International Labour Organisation, comprising more than fifty States in its membership, would be exercised in securing the universal application of such measures.

The time is therefore ripe for all competent judges to make their voices heard and to express their convictions with regard to practical methods for reducing the intensity of depressions in trade. For only by securing a consensus of authoritative opinion will it be possible to achieve that unity and universality of action which are essential to the solution of a world-wide problem.

The skeleton theory of trade cycles given in the pages which follow is an initial attempt to present in its strongest light the solution which secures more agreement than any other: the urgency of regulating the rate and range of price movements. It has been found impossible to exclude controversial matter entirely, but it is felt that *in its broad lines and conclusions* the theory represents the opinions expressed by the majority of writers in recent times. The description of the various phases of the trade cycle follows fairly closely the observations of Professor Mitchell.

[1] This paper is summarised from a fuller version.

[2] The competent international body might, for instance, be the conference of central banks envisaged in the resolutions of the Genoa Financial Commission.

Ideas have also been drawn from many other sources in order to account for the movements observed. Responsibility for the proposed measures whereby the conclusions may be applied can only be laid at the door of the present writer (as far as he is aware). They will hardly be such as to secure general agreement, and, in fact, that is not their purpose. It is merely hoped that the ideas contained may serve to stimulate further discussion directed in the most useful channels; for the international aspect of the practical problem is undoubtedly the subject which deserves the greatest attention.

The main purpose of the outline given below is therefore to concentrate attention on those points which have already secured wide acceptance. Arising out of these points of agreement, there are practical issues which, in the interests of human welfare, merit the most serious attention; and there is every encouragement to believe that a strong movement is already afoot to seek out the solution for these practical difficulties. It is in the hope of adding some small stimulus to this movement that the argument contained in the following pages is being advanced for criticism.

I.—The Successive Features of the Trade Cycle

1. *The Change from Falling to Rising Prices.*

No two trade cycles are alike in either cause or effect. In the case of that part of the cycle which is marked by a change from falling to rising prices, the revival of trade which accompanies this movement may be attributed to any one or any group of a large series of factors. A study of economic writings for the last fifty years shows that explanations of this recovery of prices and of trade have ranged over colonial expansion, good harvests, war, new discoveries, increased gold supplies, and, indeed, all circumstances which tend to stimulate demand or to draw greater purchasing power into the market. Since, however, it is here intended to consider the problem as far as possible without reference to extraordinary circumstances, an attempt will be made to show that the turn in the course of prices can and frequently does happen without the introduction of any of the particular influences mentioned above.

To anticipate in some measure the argument at the end of this section, where a more detailed account is given of the depression, it is found at the beginning of this phase of a trade cycle that the market is flooded with quantities of goods which fail to be absorbed by effective demand. This state of affairs continues, though to a diminishing extent, throughout the period

of the depression. For, although the volume of goods is gradually reduced and their prices fall, there is a simultaneous fall in effective demand through the reduction of incomes and wages. Moreover, stocks are continually being thrown on to the market through enforced liquidations.[1]

Owing to the continued existence of a supply of goods exceeding the purchasing capacity of the community, prices are thrown very much below the level at which they would stand under ordinary conditions of production and consumption. Even when the stage is reached at which prices have fallen to their lowest level, there still remains on the market a supply of goods which is more than adequate to meet effective demand. Thus, so-called "rock-bottom" prices are not economic prices, and frequently do not permit of sufficient profit being made to maintain a firm in solvency. Such a state of affairs obviously cannot continue. Through the gradual reduction of surplus stocks and the exclusion from the market of marginal producers, a stage is reached at which the remaining firms can once again restore prices to their natural level, *i. e.*, where equilibrium is found between demand and supply. It will be seen therefore that the initial recovery of prices may be due merely to reaction from uneconomic conditions obtaining during the period of depression.

Other reasons may be adduced which also have no connection with extraordinary circumstances. As the depression advances the rate of fall of prices gradually diminishes. Business men and private persons who had been postponing their purchasing with a view to securing better prices later, find that there is no longer any advantage to be gained thereby; moreover, they are unable to postpone their buying indefinitely, owing to the gradual exhaustion of the reserve of private and industrial stocks which they had accumulated during the boom. Thus the voluntary cessation of purchasing becomes gradually less effective as the depression advances.

Fixed nominal incomes and salaries carry greater purchasing power at the lower price level, and therefore increase the effectiveness of demand. Finally, the money market is favourable to the revival of trade. Bank accommodation is cheap and private investors are anxious to get their savings placed.

It will be shown later that almost all movements in industry tend to be cumulative. Good fortune breeds better fortune, and distress greater distress. The present instance is one in which a slight improvement gives birth to definite recovery.

[1] The number of failures tends to increase as the depression advances.

The evidence which Professor Mitchell brings to bear on this particular phase of the subject shows that of the five trade cycles covered by his observations only one instance could be quoted of the recovery of prices being due to causes other than those inherent in the phenomenon itself.[1] In all the remaining cases the movement was undisturbed and gradual, and might well have been attributed to causes such as those enumerated above.

Another interesting observation made by Professor Mitchell in his survey of business cycles[2] is that, in many cases, after the initial rise, prices tend to be comparatively stable over a considerable period. The explanation for this appears to be that once prices have recovered to a level which will enable a reasonable margin of profit to be made, a series of conditions becomes operative which would tend both to render a further advance unnecessary from the producer's point of view and also to cause the market to react unfavourably against such a rise. For, although the revival of trade is marked by a gradual increase in demand, there is no difficulty in meeting this new demand with the labour, plant, and raw materials immediately available. Supply therefore responds freely to demand and under conditions of intense competition between producers. Moreover, for the time being, there is a general tendency to increasing returns; for each increase of output the costs are less per unit. The permanent staff becomes more fully employed, and all available machinery is gradually brought into action; the economies of dealing in bulk come into play, and there is a general reduction per unit of output for all overhead charges, including accounting, upkeep of premises, legal advice, advertisement, etc. Bank accommodation is cheap; wages are low and usually remain constant until unemployment is reduced to a comparatively low level in the more advanced stages of the revival. Thus there is little or no excuse for manufacturers or retailers to put up prices. On the other hand, in view of the keen competition between them for markets and the fact that consumers have learnt the habit during the long depression of picking out the most advantageous quotations and of changing their custom if necessary, the conditions are not normally favourable to a rise in prices.

It is of the highest importance to note, however, that in spite of the comparative stability of prices the revival of trade continues, and that there is apparently no reason why industry should not reach a very high level of efficiency without the stimulus of

[1] *Business Cycles* (p. 453), by Wesley Clair Mitchell: University of California Press, 1913. [2] *Ibid.*, pp. 457–458.

rising prices. In addition to the factors already enumerated which make for continuous recovery, there are two further highly cumulative causes which are effective through the whole period of revival.

The first of these causes arises out of the nature of industry itself, the intimate relation between the different units of productive organisation considered both in the horizontal and vertical sense. Although the revival of trade takes place simultaneously in many industries, it might be advisable to follow the diffusion of business activity which arises from the recovery of one industry alone, say that of railway transport. In the first place, any additional demand for rails or rolling stock will immediately be reflected in increased activity in the iron and steel trade, in upholstery, cabinet-making, the timber industry, etc. Greater development in railway service will entail larger supplies of coal, and will also involve the employment of more workers for all functions on the permanent way and in the repair shops. This general increase of employment in the railway transport industry and in all trades dependent on it will react, through wages, on the demand for almost every kind of consumable goods, and will increase employment in the trades producing these goods. The revival is thus immediately spread, vertically, over all supply services, and, horizontally, over associated and dependent trades.

What is true of the one industry cited is equally true of all others. Trades and processes are so interrelated that any stimulus to one is immediately reflected in those industrially and locally dependent on it, and this is gradually diffused throughout the whole of industrial organisation. Moreover, this diffusion is cumulative in effect; revival of trade spells greater employment, which in turn is accompanied by an increase in the real wages and incomes of the community; this finds expression in a further stimulus to effective demand and therefore in greater employment. Thus a complete cumulative ring is formed which, acting alone, would gradually draw industry back to full activity.

However, there is a second factor which can be considered to operate throughout the period of rising activity; that is, the development of the spirit of business optimism. During the depression all leaders of industry have been anxiously scanning the times for signs of revival. Enterprise has been continuously restrained, until at last there has appeared some small evidence of healthier prospects. But from this period onwards there is ever present in the mind of each *entrepreneur* the question whether or not to undertake a certain business risk; and on the decision

made, the importance of which is proportionate to the number of thousands of industrial captains in the world and the forces at their command, depends the whole future movement of industry. Now, the human or psychological element is the most important of all in determining the decision. A man is swayed by his financial journal, by the success or failure of his competitor, by the opinions of those with whom he transacts his daily business, by everything, in fact, which combines to form what might be termed the trade atmosphere. Each one gains his inspiration from it and each contributes his own quota.

If the spirit of business optimism may thus be considered a factor in determining the course of industry, it must equally be regarded as a cumulative force. If the revival of hope turns the tables in favour of enterprise, such enterprise will give rise to additional demand, which, when universalised, will justify each original risk. This serves to reinforce business confidence still more and to stimulate still further enterprise.

This second cumulative circle, composed of business confidence, enterprise, and increased demand, links up with the one previously described of increased employment, wages, and demand, thus forming a powerful combination capable of leading to the fullest employment of all the factors of production.

It is of the highest importance for the conclusions of this theory (Section II) that general agreement should be secured on the possibility of efficiency in production reaching almost a maximum without the stimulus of a rapid rise in prices.

The course of the trade cycle has thus far been traced to a point at which the labour and materials immediately available for production are largely absorbed, yet without entailing any very marked rise in the course of prices. It is felt necessary, again, to draw particular attention to the point reached as being of the utmost importance for the conclusions of this theory. For the development of industrial activity beyond this point, under existing currency conditions, almost inevitably entails a rise ot prices increasing in rapidity and introduces into the trade boom those unhealthy elements which are largely responsible for the depression to follow. It is at this point, where unemployment has fallen to an average of about 2½ to 3 per cent., and where industry has reached a high level of efficiency without as yet causing a rapid rise in prices, that any measures for the control of the trade cycle should be introduced. One remedy proposed in the conclusion to this outline is that of the restraint of currency expansion. If such a measure were approved, it would be at this

particular point[1] in the development of trade that its application would give the most satisfactory results.

2. *The Development of a Rapid Rise in Prices.*

Although the stage may have been reached at which it becomes difficult to absorb more labour from the market, the will to launch further enterprise is by no means diminished thereby. It has been shown how business confidence and trade develop side by side, growing ever stronger as time advances; thus, when prospects are healthier than they have been for years, and when the market is greedy for goods, the problem of labour shortage is hardly considered. It continues to be in the interests of every *entrepreneur* to compete for as large a share as possible of available labour and of the product of labour.

It would be well to follow out the manner in which this condition of shortage reacts on prices. Consider, for example, the case of a mine-owner who is pressed on all sides to deliver more and more of his product. A point is reached when all his reserve stocks are exhausted and all the labour available in the neighbourhood of the mine is absorbed, so that it becomes impossible to increase output sufficiently to meet the rising demand. The mine-owner naturally takes advantage of the situation to raise the price of his commodity, and this price is reflected in the costs of all units of production down to the retailer and the final consumer. It thus constitutes an important factor in raising wholesale and retail prices.

When this condition of shortage is general, the tendency to rising prices will also be general, and will continue to be so for as long as banks are willing to extend loans to *entrepreneurs* so that they may bid against each other for the limited quantity of materials available.

For many reasons, to be explained later, the general rise of prices does not tend to reduce demand. One reason might be noted at this stage. To take the example of the mine-owner once again, it should be observed that the increased purchasing power,[2] whereby the miner's customers are enabled to pay the additional price of his commodity, is transferred into the pockets of the direction and employees of the mine. It immediately comes

[1] The definition of the point referred to would naturally be somewhat arbitrary. It would probably be best defined by means of the unemployment index, say, the point at which employment reaches 97 or 97½ per cent., varying according to the country.

[2] Purchasing power may be increased by greater efficiency of currency, by transfers from deposit to current accounts, or by a general extension of the period recognised for private credit between traders, but principally through the increase of bank accommodation.

back on the market as an increase of purchasing power against consumable and capital goods. If this situation may be considered general throughout the whole of industry, it will be seen that the purchasing power in the hands of the final consumer increases simultaneously with the costs of production, and that the consumer is therefore able to pay the additional price which the higher costs entail.

That this is the case becomes more evident from a study of the reaction between prices and wages.[1] It has been observed in the past that during the earlier part of the period of rising prosperity the wage lag is more pronounced than at the end. In fact, wages often continue to decline when prices are recovering, a state of affairs which may be largely due to the weakening of the workers' bargaining power as a result of protracted unemployment. The earlier increases of wages during the upward movement of prices may be considered therefore as necessary adjustments to meet the higher costs of living, their effect being merely to prevent demand from falling seriously. If demand is increased during this period, it is as a result of the absorption of more labour and the working of longer hours. Later, however, the wage lag becomes gradually less, and in certain of the more powerfully organised industries may be quite eliminated. As trade improves, the unemployed and less efficient section of the community is absorbed; old men and boys are engaged; and longer hours are worked and remunerated at higher rates. During this process a stage is reached when each addition to the total nominal wages of the community fails to yield a corresponding increase of output.

There are other factors which contribute to this tendency to decreasing returns. Considerable outlay is provided for capital expenditure, the product of which is realised only after several months or even years. Luxury and welfare expenditure is increased and management tends to become slack.

As this process continues, it will be seen that for every additional dose of purchasing power drawn into the market to support the costs of wages, management, and capital renewal, there is a gradually diminishing return of goods *immediately* available to meet this purchasing power. As this tendency increases, the rate of rise of prices tends also to increase.

As far as the relation between wages and prices is concerned, the upward movement is cumulative. When the machinery for raising wages is working efficiently, every rise in the index number is followed by an addition to wages, which is reflected both in

[1] The term " wages " is intended to cover remuneration for all kinds of work.

consumers' demand and costs of production. This gives a further stimulus to rising prices, again followed by wages in an unending circle.[1]

It would seem that the gradual loss of economy resulting from the tendencies described above would make serious inroads into profits. This effect is, however, largely offset by the fact that the volume of trade is exceptionally high, so that the slight loss through diminishing economy is compensated by a large turnover. Moreover, as the rate of rise of prices increases, it confers an additional bonus on the producer, for costs are incurred when prices are comparatively low, and the product is sold later when the level is higher. It seems fairly safe to say that, as the boom advances, nominal profits continue to rise and give the appearance of increased prosperity; and that, although real profits may fall slightly relatively to turnover, the absolute total is not seriously diminished. In any event there remains for the average industry such a wide margin of profit as to cause business men to redouble their efforts in order to take full advantage of this condition of affairs whilst it lasts.

By the fact of its rendering profit-making so comparatively easy, the upward movement of prices is thus a most powerful stimulus to industry. It spurs all business men to greater activity, to increase their turnover and their plant, and to launch new enterprise. It arouses the ambitions of others previously not engaged in business, giving birth to numerous new undertakings. Every additional effort immediately reacts on demand and helps to force up prices still further. Again the rise of prices reacts on industry and encourages still greater enterprise.

Rising prices may therefore be considered to create two sets of cumulative forces. On the one hand, there is the reaction between prices and wages, and, on the other, the stimulus given to enterprise through the growth of profits. Working together these factors tend to maintain industry in a state of high activity. This, however, is only at the cost of a continual rise in the level of prices.

Some consideration has already been given to business confidence and its relation to industrial activity. It should be noted here how the spirit of optimism is not only reinforced but is unduly exaggerated by a rapid rise in prices. The business prophet can

[1] This constitutes no argument against the raising of wages. It is, however, a strong argument against allowing prices to rise rapidly; and particularly is it a strong condemnation of any currency system which permits of the extension of purchasing power beyond a point at which it becomes impossible to increase production by a corresponding amount.

only base his judgment on past and current events. The fact that prices have been rising probably for two or three years and that at the moment of making the decision they are rising more rapidly than ever is sufficient indication for the majority that the period of good fortune is not at an end. The minority who may at least have some historical knowledge of business cycles may appreciate the fact that prices cannot rise for ever, and that when they stop they will stop suddenly; but their knowledge is too indefinite to weigh heavily in the balance against the unprecedented good fortune which they and all around them are enjoying at the moment.[1] Even if authoritative warning could be given two or three months before the cessation of rising prices, this would not avoid the effects of faulty judgment in cases where an estimate has to be made for three months or three years to come.

It will be seen therefore that by the very nature of the rise in prices, gradual in the beginning and slowly developing greater and greater rapidity, it contains psychological elements capable of producing a spirit of business optimism far in excess of what is justifiable. This continued upward movement, so rosy in promise, contains an insidious and unseen threat, for it sows the seeds of all the conditions which intensify the depression, the piling up of stocks and the contraction of currency which inevitably follows the over-strain. The more rapid and extensive the rise, the worse will be the results on the depression to follow. It is easily seen that this is the case as regards over-expansion of currency, which brings in its train a corresponding contraction; but it may be advisable to explain at greater length the effect of rapidly rising prices on the accumulation of stocks.

In this connection it must again be noted that all production is carried on with a view to realisation by sale at some future date. There is therefore every advantage to be gained by buying large stocks of the materials necessary for production at a period when prices are comparatively low. When a rise in price is anticipated, purchases of materials will therefore tend to increase, and as this movement of price accelerates, the stimulus to purchasing for stock will be increasingly enhanced. If the rise becomes so rapid that it is profitable merely to hold goods in store for future sale, manufacturers will be tempted, not only to lay in stores for production, but also to hold up the goods which they

[1] It is possible that in the future it will be possible to forecast the turn of the tide with some degree of accuracy. Any forecast which is considered authoritative by a large section of the business community will not be without its influence on the trend of industrial activity, and may tend to reduce the number of unwise adventures undertaken during a boom.

have manufactured for sale at a later date. The tendency is therefore for retailers, merchants, and manufacturers alike to increase their holdings of materials for production and of goods for sale. As far as the merchant class is concerned, the situation is frequently aggravated by the accession of numbers of new speculators to the ranks of middlemen.

There can be no doubt also that the continued upward movement of prices stimulates private purchasing. In the first place, there is a general tendency to buy in anticipation of higher prices. Secondly, a boom in trade increases the purchasing power of the majority of the community. Thirdly, it usually causes a redistribution of wealth, which in turn is accompanied by competition for high social standards in the fortunate section of the community, and a struggle on the part of the remainder to maintain their existing standards. The total result is a very considerable enhancement of demand for consumable goods.

This accumulation of both private and business reserves resultant on a rapid increase in the price level tends to aggravate the depression to follow in two ways. In the first place, it swells demand to a point much in excess of the actual demand of the final consumer, and thus leads to an unduly optimistic view of the present and future state of the market. It also means that when the depression commences, current needs can be supplied largely from stock and that the factors of production, including labour, therefore remain inactive.

In the second place, the absorption of goods for stock tends to aggravate the artificial appearance of shortage and to force up prices. It constitutes an additional strain on credit facilities, any over-strain being reflected in a corresponding contraction during the depression.

It has been necessary to some extent to anticipate the explanation of conditions obtaining during a depression in showing the deleterious effect of rising prices as reflected in the period of distress which follows. This effect will be much more evident when the latter period is taken more fully into consideration. Since the principal remedy suggested in this survey of business cycles is the restriction of currency *with a view to reducing the rapidity of price movements*, it is found necessary to show at every stage the true significance of such rapid movement for the progress of industry viewed in its widest aspect.

3. *Stringency of Currency.*[1]

[1] Throughout this essay the term "currency" is intended to cover all forms of purchasing media.

In view of the formidable list of cumulative factors, all of which tend to force up the level of prices and to urge on the wheels of industry, it would seem that any force capable of putting an end to the activity thus generated must be extremely efficient if not drastic in character. One such check is known and its efficiency is generally recognised by all. There are many others suggested, but the nature and extent of their influence are not sufficiently established by the consensus of economic opinion to make it possible to include them in this brief survey. The one condition capable, in the opinion of the majority, of nullifying the effects of all the factors enumerated above is that of currency stringency.

It is obvious that during any period of rising costs and growing trade an increasing supply of accommodation will be necessary to enable firms to meet their expenses. Purchasing power may be expanded through the increased efficiency of the existing fund of currency, through the general lengthening of the period recognised for private credit between traders, through transfers from deposit to current accounts, or through an increase in the amount of book transfers, a kind of "invisible" medium of exchange familiar to brokers. Although these methods must be taken fully into account when considering the extent to which the purchasing power of the community may be enlarged, it must be agreed that by themselves they admit of only a limited power of expansion.

In general, industry may be considered to be financed partly out of the savings of the people and partly through the expansion of bank loans.[1] As the volume of trade increases and prices rise, the demand for both forms of accommodation increases; and since these both supply the same form of demand and are to some extent interchangeable, the price which one commands moves in sympathy with that of the other. Thus, as the boom advances, both the rate of interest and the bank rate for loans continue to rise.

When the stage is reached at which it becomes dangerous for banks to increase their loans further in view of the dwindling of the reserve ratio, the bank rate is raised and other obstacles are placed in the way of borrowing, until it becomes impossible or unprofitable for a number of clients to borrow further. At

[1] It is not suggested here that an increase in savings is an increase in purchasing power, for it merely constitutes a change in the direction of spending. On the other hand, the extension of loans by banks constitutes the principal means of increasing the total amount of purchasing power available.

the same time, the rise in the rate of interest renders the floating of loans in the market increasingly unprofitable.

Sooner or later, therefore, if prices and costs continue to rise, the limit of expansion of purchasing power will be reached. Although this limit is not clearly defined, it is none the less effective. If analogies were not dangerous in argument, one might liken the limit to an elastic band: the more it is stretched the greater the pressure it exerts towards contraction. When the point is reached at which the limit becomes effective, *i. e.*, when purchasing power can, under existing circumstances, be expanded no further, it will be seen that there can be no further addition to the volume of trade (unless there is a fall in the level of prices) and no further rise in prices (unless there is a reduction in the volume of trade). Broadly speaking, if it is impossible to secure purchasing power it is impossible to buy. Trade must therefore be restrained by the restriction of currency.

For all those who accept the Quantity Theory of Money in any form, this solution is obvious. At the period in question, the volume of goods available against existing purchasing power is unprecedentedly high and is increasing as rapidly as the forces of production can make it. The efficiency of all forms of currency has already reached its utmost limit. Under such circumstances, if the quantity theory holds, the restriction of the volume of currency must inevitably lead to the checking of soaring prices.

It might, however, be advisable to follow out in greater detail the reaction of currency restriction on industrial activity, and for this purpose it would be well to examine first the effect of a high rate of interest. In general, it is the demand for long-period loans which is supplied by private investment, and consequently, when the rate of interest rises, business men have to examine this rate in the light of the profits which they are likely to be able to make over a long period of time including both boom and depression. A rise in the rate of interest acts very effectively therefore as a deterrent to new construction and capital outlay. It is noticed, in fact, that there is a marked decline in constructional trades, and in industries producing capital goods, considerably before the end of the boom.

The reaction of a high bank rate for accommodation on industrial expansion might best be shown through the experience of an individual and typical firm. Generally speaking, businesses are apt to use the bank for purposes of financing special projects which require short-term credits. During periods of inactivity the loans made are comparatively small and show considerable

fluctuations from time to time for each firm. However, when prices of materials and wages begin to rise the typical firm begins to find itself more permanently dependent on the bank, and requires continuous credit merely to liquidate current debts and the weekly wages bill. With every rise in costs, the balance of indebtedness to the bank tends to increase, and every year and every quarter marks an addition to the outstanding debt. When the bank rate rises so as to become prohibitive, the firm can no longer maintain the same rate of expenditure on wages and materials. As long as prices of materials and wages continue to rise, the firm, with its limited purchasing power, will have to reduce its expenditure. The effect of such reduction will be, in the first place, a diminution in the demand for the materials of production, and in the second place a reduction in the amount paid in wages, causing a corresponding fall in consumers' demand.

Let our typical firm be multiplied now by the thousands of which it is the type, and it will be seen that the general restriction of currency will be immediately effective in reducing demand for all kinds of goods.

In point of fact, the process of contracting bank accommodation may follow rather different lines. It is probable that, in the beginning, the high rate demanded for interest and discount induces all firms voluntarily to restrain their demands for bank accommodation and private savings. But the banks, apart from enhancing the price of their commodity and increasing the severity of collateral tests, probably do not begin to discriminate between their clients until the failure of demand diminishes profits and threatens the solvency of certain of the weakest producing units. When it is evident, however, that some firms have been too sanguine in their estimates of the future or are in danger of bankruptcy through the accidents of business fortune, the banks may draw the rein on these firms alone, treating the remainder with the same liberality as before. The result, however, can only be the same as that outlined above, a diminution in the demand for producer's goods and, indirectly, for consumable goods.

The middleman and the retailer are equally involved in the difficulty of securing purchasing power. The rising bank rate makes the holding of stocks progressively less profitable and causes them gradually to reduce the size of their orders to manufacturers. All classes of the community are thus obliged first to limit and then to reduce the amount of their purchases.

Ultimately, through the failure of demand, the soaring of prices is checked.

It would seem possible, at any moment in the progress of a trade boom, to prevent the further upward movement of prices solely by restricting currency. The period at which it would be advisable to put such a measure into operation, and the extent to which it should be applied, are matters which may suitably be treated at a later stage. It is desirable first to complete the description of the trade cycle.

4. *The Turn of the Tide.*

Although the majority will probably accept the explanation given above of one method of checking soaring prices, there are many who will wish to inquire why the mere restraint of the upward movement should necessarily bring in its train the reverse movement. Since the explanation is to some extent psychological, it might be well to consider again the experience of a single typical firm. The condition accepted from the argument in the previous section is that through the restriction of currency a slight contraction in demand has become evident and that prices in general have ceased to rise. In other words, our typical firm finds that it is having some difficulty in marketing its wares at the price it is demanding, and knows that a large number of other firms are experiencing the same trouble. In view of the large stocks which have been accumulated in anticipation of an active market and rising prices, this check, probably unexpected, gives rise to no small measure of apprehension; and the first precaution taken is to reduce, if not to cancel, orders for further supplies. (It has indeed been the experience of most firms that the first tangible sign of the turn of the tide has been the actual cancellation of orders.) Such a falling off in orders can only result in the working of short time or in unemployment in the earlier supply processes. This leads in turn to a reduction in the demand for consumable goods, which only enhances the difficulty experienced by retailers in marketing their goods. Such a process may continue cumulatively for several weeks or even months before its effect is apparent, but the inevitable result is a break in prices.

With the first downward movement, business confidence, on which the continuance of trade activity is so dependent, collapses entirely.[1] Every unit is faced with the need for liquidating

[1] Failure of business confidence might be due to other causes. A serious bank collapse might precipitate a crisis and aggravate its effects. The failure of profits for a considerable section of the community, for reasons other than those cited above, would cause first a cessation of rising prices and then a general

large stocks of goods in a stagnating market and with the threat of falling prices. Some firms endeavour to hold up their prices as long as possible, but there are others which either from design or necessity adopt the policy of sale "at any price." There is a general tendency for middlemen, in particular, who have been holding out for a rise in prices with the aid of borrowed capital, to become panicky and to force their wares on to the shrinking market. Once the fall of prices is under way, the rapidity of this movement, according to historical evidence, usually exceeds that of the rise in prices during the boom, and amounts, in fact, to general collapse.

5. *The Depression.*

The reason for the great rapidity in the fall of prices is that the forces which make for depression are even more cumulative in effect than the factors actuating the boom.

Unemployment, which may be slight in the beginning, causes a fall in demand, which again increases unemployment. Whereas, during the upward trend, there is a limit to which men may increasingly be employed, on the downward grade there is virtually no limit to which men may be unemployed. Thus the interaction of unemployment and demand can reach greater limits than that of employment and demand.

Just as, during a boom, the rise of prices stimulates purchasing in anticipation of future wants, so the fall of prices acts as a restraining influence. Both industrial and private consumers prefer to subsist on their largely replenished stocks, and to hold out as long as possible for a further fall. The more rapid the collapse of prices the greater the incentive to postpone buying, and the postponement of buying depresses prices still further.

The existence of large reserves for current use constitutes perhaps the worst cause of aggravation. Not only does it enable private purchasers to refrain from buying for a long period, but it almost compels retailers and merchants to cease from further ordering; the liquidation of existing stocks presents a task of sufficient difficulty without the burden of an additional turnover. Thus, until the surpluses which have been amassed during the boom have been cleared, it is impossible for current demand to

---

fall. It is possible also that any forecast of a change in fortunes would, if it were accepted as authoritative by a large section of the business community, hasten the coming of this change. Business confidence may, in fact, be considered the hub on which all the factors in the trade cycle turn. The community acts according to its expectations of the future, and the action taken is almost invariably such as to bring about the effect anticipated.

strike through to the source of supply and call into play again the forces of production.

With the fall of prices, the realisation of a margin of profit becomes increasingly difficult. Existing stocks, manufactured at high cost, can only be marketed at a loss; and whereas costs in wages, materials and overhead charges remain comparatively high for a period, prices are rapidly on the wane. Under these conditions, despondency succeeds the reign of business confidence and banishes all thought of new development. Economy becomes the watchword of the day, "luxury" expenditure being ruthlessly cut down. The fall of prices thus intensifies the depression through the destruction of business confidence. Since this in turn diminishes demand, it reacts, cumulatively, on the fall of prices.

As in the case of the boom, the most important practical feature for consideration during the depression is the policy of the banks. In that these institutions control the community's basic fund of purchasing power, their method of employing this essential instrument of commerce during periods when purchasing is either excessive or insufficient is of vital interest to industry; and the degree of sanity with which the banks wield this weapon depends to a large extent on the solidity of their own situation. As has been explained above, one feature of all business crises in the past has been the existence of a very stringent money market, concomitant with a dangerous strain on the reserves of the bank. At a time when banks ought to have been freest to treat their customers with liberality, they themselves have been most encumbered with difficulties, and for this reason their policy has frequently been dictated by nervous self-interest rather than by the wider interests of the community.

The need for ready money is more urgent during and after the crisis than immediately before. For every firm the current expenses remain high; the wages bill has to be paid weekly; debts are difficult of collection; creditors are clamouring for payment; custom has vanished and the turnover has collapsed. If, during this period, the banks, anxious to protect their reserves, bring pressure to bear on their clients to reduce their borrowings, they may compel partial or complete liquidation for those in serious difficulty. The result of such action will be twofold. By forcing quantities of stocks on to a shrinking market, it will depress prices. In the second place, it will directly and indirectly increase bankruptcy. The collapse of one or two units will

increase the embarrassment of the remainder, partly through the depression of prices, partly through the loss of the demand previously expressed by the bankrupt firms and their employees, and partly through the occurrence of bad debts.

If it is desirable that banks should discriminate between firms, the discrimination should take place as early as possible before the crisis so that there may be less need afterwards. The restraint of doubtful enterprise should take place at a time when the market as a whole is strong, not when all units are beginning to fail. Hence, in all instances where banks have previously been pursuing a generous policy they ought, during and after the crisis, to be in a position to treat each of their clients with some degree of liberality. Their essential duty is to pilot their dependent firms through the troubled waters rather than add to their cargo of difficulties.

Needless to say, such a policy is impossible when the situation of the banks themselves is precarious. It would hardly seem necessary to emphasise the calamitous position which arises when the banking system itself collapses. For the insolvency of the banks means the temporary insolvency of all firms dependent on them. Cheques, which may represent the greater part of the currency of the country, are valueless, and there is a premium on legal tender. Firms which cannot secure legal tender are obliged to cease buying and to turn away their employees.

Between this extremity of disaster and absolute calm there are many possible situations varying in degree of distress. The only satisfactory situation, however, is for banks to be entirely care-free as to their own reserves during the period of industrial strain. Only thus can they hope to discharge unfailingly their functions as the mainspring of commerce and industry.

The formidable array of cumulative factors which have been described as intensifying the depression would seem capable of bringing industrial ruin in a very short time on the whole community. However, there is one important factor which limits the intensity which this depression can reach. Wherever *provision is made for the unemployed, that section of the community*, although not producing, is still consuming. The real wages of the remainder, who continue in employment, are high and the demand which they express for consumable goods is great in proportion to the amount they produce. Consequently the surplus goods which have been stored up during the boom are gradually absorbed off the market, and current demand begins to strike through again to the sources of production,

thus creating more employment. This process increases as the reserve stocks are reduced, and with the re-employment of wage-earners, demand for consumable goods is further stimulated. It will be seen from this argument that there are two factors of particular importance in the recovery from a depression: the rapidity with which reserve stocks are reduced; and the extent to which the demand of the community is artificially supported. Other factors of importance exist, some account of which was given at the opening of this section. The description of the business cycle is now, however, complete, inasmuch as the tail has been linked up with the head. The next matter for consideration is therefore the development of some conclusions.

II.—The Problem of Controlling the Trade Cycle

6. *The Remedy.*

In order to discover the remedy which will be most capable of alleviating the distress caused by certain phases of a trade cycle, it will be necessary to extract from the foregoing summary those elements which may be considered to be chiefly responsible for aggravating the crisis and intensifying the depression; then to estimate how far those elements may with advantage be removed by action taken before or after the crisis.

Let us consider first the effect on conditions during both boom and depression of *a rapid rise of prices*. It has been shown that, during the period of intense activity preceding a crisis, a rapid upward movement in the price level accentuates the tendency to purchase in anticipation of higher prices and to store up large reserves for future use (Sections II, III). Also the same movement, by facilitating the realisation of profits and by its psychological effect on the business community, conduces to excessive optimism as to the future requirements of the market (Section II). It has been shown that the accumulation of stocks due to these conditions has the effect of intensifying and prolonging the depression (Sections II, V).

Again, it was seen that the effect of rising prices, which continued with cumulative force during the boom, was to cause a heavy strain on the money market and to threaten the adequacy of bank reserves (Sections III, IV). The outcome of this was that, during the crisis and the depression, banks were not free to act entirely in the interests of the community and that it became essential to contract currency to some extent in order that the

financial situation of the banks might be made thoroughly secure once again.

Granted, therefore, that on two very important grounds a rapid rise in prices during the active period is most detrimental to conditions during the depression, it will be necessary to determine whether the means can be found for diminishing the rapidity of this movement without at the same time giving rise to serious trouble in other directions.

It would be well to examine in this connection the effect of raising the Bank Rate [1] to a high figure during the early stages of a boom, that is to say, as soon as it becomes evident that the factors of production, labour in particular, are very fully employed, and that any further considerable increase in currency will be accompanied by an appreciable rise in prices.

In the first place, if the restriction of currency through the high Bank Rate were very severe it might have the effect described in Section III, *i.e.*, it might bring the period of rising prices abruptly to an end, and cause something of the nature of a depression. However, since the accumulation of stocks will have been small, the depression will be neither serious nor lasting. Also, since there arises no cause for anxiety as to the sufficiency of bank reserves, there will be nothing to prevent an immediate reduction of the Bank Rate to stimulate the revival of trade and enterprise.

However, if the restriction of currency is only severe enough to prevent acceleration in the rise of prices, the results will be even more beneficial. In the first place, a high rate for bank accommodation will restrain the launching of rash enterprise. One of the worst features of a boom in trade is that it permits the establishment of many new business houses, which are only capable of flourishing during abnormally healthy periods. The subsequent failure of these concerns serves to intensify the depression. Hence, to the extent that it discourages this form of activity, a high Bank Rate is most desirable. In the second place, the high price of borrowed capital will prevent all firms from carrying more stock than is necessary to supply current demand. There will be no advantage in holding goods in store, because prices are prevented by the policy of restriction from rising rapidly enough to offset the interest payable on the capital

[1] The term Bank Rate is used to denote the actual rate at which Banks in general will make loans or discount bills in favour of their clients. The term Discount Rate is avoided owing to its more special meaning and the fact that it is not always effective in controlling the market rate for accommodation.

value of the stock. For the same reason, there will be no incentive to lay in stores of materials of production in anticipation of higher prices. In the third place, the rate of interest for private savings will rise in sympathy with the Bank Rate for accommodation, thereby stimulating saving. The demand for consumable goods and private purchasing for future requirements will therefore also be restrained.

If the policy of early restriction of currency may thus be considered beneficial by virtue of its preventing the accumulation of private and industrial reserves, there is yet a more potent argument for its adoption. It has already been pointed out that if the restriction of currency has the effect of completely checking the rise of prices at an early stage, the situation of the banks during the industrial strain and slight depression to follow will be one of complete freedom. All banks will be in a position to act fully in the interests of the business community, their policy being unprejudiced by anxiety for their own solvency. This in itself will be a great gain. Where, however, the final check occurs at a later period, the gain will be of another order. If currency is permitted to expand to the same extent as previously though at a slower rate, it follows that the period of rising prices and of active trade will be spread out over a longer period. Instead of having a brief spell of intense and somewhat irrational activity there will be a long period of comparatively sound development.

Such a state of affairs would seem highly desirable from every point of view. One result of outstanding importance would be the diminution of fluctuations in the cost of living, thus reducing the social friction which always accompanies changes in prices and in fortunes. Further benefit would accrue from greater stability in the relations between creditor and debtor and in the value of industrial securities. A complete list of the advantages to be gained by restraining the rapidity of price movements would be too long for insertion here. However, it is hoped that sufficient has been said to show that greater restriction of currency may result in either diminishing these fluctuations or in stretching them out over longer periods, and that in either case the results would be generally beneficial.

It would seem that if it were possible to control currency in such a way as to gain absolute command over the movement of prices, the ideal policy would be such as to secure a combination of the above two results. It would aim first at maintaining as gradual a rise in prices as possible, thus spreading out the

period of good fortune, and, secondly, at checking completely the expansion of currency considerably before the solvency of banks could be considered in jeopardy. If it were possible to produce these two effects on a world-wide scale, the world depression would be largely freed from its two most disastrous features, the need for rapid contraction in the currency, or the purchasing power of the community, and the existence of unmarketable reserves.

7. *Currency Policy during a Depression.*

It is recognised that various means exist for swelling the volume of currency during a depression or, at least, for checking the rapidity of contraction. The effect of reducing the rate of currency contraction would be to restrain the fall of prices and to alleviate the depression temporarily. The problem arises, therefore, to what extent should measures, having this effect on currency and prices, be adopted during a depression?

The criteria on which to base a judgment should not be made dependent so much on the rate of fall of prices, as on the amount of unemployment this fall is creating, and the extent to which it is depressing trade.

8. *The Application of the Remedy.*

In the foregoing section it was demonstrated that the most effective method of regulating demand would be through the scientific control of the means by which demand finds expression, that is to say, through regulating currency. The purposes which such regulation was to achieve were briefly as follows:

1. After industry has recovered a high state of efficiency, to reduce to a minimum the rate of rise of prices, without thereby precipitating a fall.

2. To prevent prices from rising and currency from expanding to a point at which the adequacy of bank reserves might be threatened. To avoid the necessity subsequently of rapid contraction of currency.

3. To enable the currency supply of the community to be made more easily available to industry during the depression and to ensure that this most efficient method of alleviating the strain may be used fully in the interests of the community.

The achievement of these purposes will entail the exercise of complete control over the issue of currency, not only nationally but internationally.

From the national point of view, it will necessitate central control of the issue of legal tender and an effective means of regulating the proportion of bank accommodation which may

be granted on the basis of this legal tender. Such control should be exercised by a body which represents the general interests of the community—neither their political interests nor their banking interests as such, but their social interests in the broadest sense.

International collaboration of a most intimate and continuous character will also be necessary in order to secure any approach to scientific control. Probably a very small number of the most powerful States acting alone could control the broad lines of the currency policy of the world, but it seems extremely doubtful how far they could make their policy effective, for instance, in the delicate operation of restraining a rise in prices without thereby precipitating a fall, unless they had the co-operation of other countries. It must be remembered that, in all phases of the trade cycle, business confidence is a feature of central importance. This powerful but extremely delicate factor is sensitive to influence from any portion of the international sphere. If industry were rudely shaken in one country alone, the effects might react cumulatively on business confidence over the whole world. There would seem no certainty therefore that one section of the economic world, even though representing the most powerful industrial nations, could protect their currency policy from interference by a very small minority. The argument for the widest possible international action in currency control therefore seems well founded.

There is little doubt, however, that beneficial, though limited, results might be achieved by a single State acting alone. If in any country the banks were strong enough to resist the pressure of business propaganda and to restrain the issue of currency whilst the rest of the world was freely expanding, the tendency in that particular country to produce for stock and amass reserves would be diminished, and consequently it would not suffer to the same degree as others during the depression. To the extent that its commercial relations were international, it would not, however, be able to escape from the effects of the world depression. Hence, if any State desired to make its policy effective in controlling industrial conditions within its borders, it would need to call into co-operation the other principal industrial States.

9. *An International Organisation for the Control of Currency.*

If it is agreed that the regulation of industrial conditions by means of currency control is highly desirable, and that such regulation could only be effectively achieved by international co-operation, it will be necessary to consider what kind of

international body will be most capable of exercising the function of control.

In the first place, the members of such a body will have to be in a position to answer for the policy adopted in the country they represent. This does not necessarily mean that they will be functionaries of the State, for in many cases the State does not control the issue of currency except in so far as it prescribes legal limitations. This body will also need to be permanent, in that it or its executive council will meet at stated intervals, which may be reduced at their own option, and that it will require a permanent administrative organisation. It would have to be empowered to make recommendations to the organisations which control the issue of currency in the different countries or to the Governments themselves, to the League of Nations or to the International Labour Organisation. Its discussions and decisions would be secret to the extent that this body considered secrecy necessary.[1] Representatives of industrial organisations might be admitted to a hearing on questions of general policy.

Such an organisation would not be an organisation of States or of banks as such, but to a large extent an organisation of currency controllers, each member of which had the power to regulate the issue of a proportion of the world's currency. It seems that once the general lines of policy were agreed upon by the general conference of representatives, a small executive, comprising the more powerful economic nations could, by action in their own countries, and recommendation to the remaining Members, direct with accuracy and certainty the currency policy of the whole world.

It is probable that the spirit of internationalism is not sufficiently developed to admit of such close collaboration between units which may still look upon autonomy as the highest gain and the greatest security. It should be noted, none the less, that the difficulty here is not one of State sovereignty, for in many instances it is not the State which wields the power to regulate currency.

10. *The Fisher Scheme.*

In view of many difficulties of a practical nature which would be encountered in the application of the remedy proposed in the preceding pages, it would seem advisable to consider alternative schemes which would not require the same degree of international collaboration.

[1] *It is conceivable, for instance, that secrecy would be necessary to prevent speculation from upsetting the purposes of any decision; it is hardly probable that the occasion would frequently arise.*

The Fisher scheme aims at restricting the fluctuation of prices through compensatory alterations in the gold content of the monetary unit. The change in the gold content could not of itself affect prices, though it would set in motion a process which would ultimately influence prices in the required direction by affecting the nominal value of the reserves held by banks, and by increasing the rate of flow of gold to and from these reserves. It would oblige banks to use the corrective influence of the bank rate more rapidly and more severely than would be necessary if there were no alteration of the gold content.

The rate of flow to or from the mint would be affected in the following ways. The cheapening of the selling price of gold at the mint (which is equivalent to the increase in the gold content to compensate a rise in commodity prices) would cause a flow of gold from the mint and monetary reserves into the arts, until the price in the market was depressed to the level adopted by the mint. In the second place, it would lead to the export of gold until general commodity prices in foreign countries rose, thus making gold equally cheap in those countries.

It seems probable that gold would disappear so rapidly from the mint and monetary reserves that banks would be compelled to raise their discount rate abruptly to a very high level. Even assuming that banks were able to act in anticipation of price movements and thereby prevent the reduction or increase of their reserves which such movements, together with the change in the gold content, would cause, the difficulties are not yet fully overcome. For the effort to anticipate this flow of gold would result in nervousness and irregularity in the manipulation of the bank rate, a condition which would be detrimental to industry.

There are other grounds for considering that some slight elasticity in price movement would be desirable. What the present writer would like to see in force, failing the possibility of international collaboration outlined in the preceding section, would be a scheme for the regulation of prices through the control of the volume of currency, this method being reinforced by a *delayed application* of the Fisher scheme.

For instance, an arrangement of the following nature might be adopted: A price level would first be chosen as a "normal" around which it is felt desirable to stabilise prices. After that level has been reached, the endeavour would be made to keep prices from moving more than, say, 3 per cent. above or 3 per cent. below the level. This would be done by regulating the volume of currency through the Bank Rate for accommodation and by

the control of note issue, or by "rationing" or by other direct means. If the banks failed to restrain the movement of prices within these limits, it should be made legally compulsory to give effect to the Fisher scheme at a point, say, 5 per cent. above or below the normal. That is to say, for every 1 per cent. beyond a 5 per cent. rise of prices, 1 per cent. gold would be added to the content of the monetary unit; for every fall of 1 per cent. below a 5 per cent. fall in prices, the gold content would be reduced by 1 per cent. It seems probable that such a method would be effective in restraining fluctuations within smaller limits than 5 per cent. either way, because banks would be desirous of avoiding a dangerous reduction or an overflow of their reserves through the application of the Fisher scheme, and would not permit the price level to rise or fall to the limits where this would be possible. In any event, the movement beyond 5 per cent. in either direction would be very limited, for, as has been shown above, the Fisher scheme provides a fairly drastic method of preventing further price movements.

Such a method would have the advantage of allowing a degree of elasticity in currency control and of preventing nervous irregular manipulation of the Bank Rate which might prove detrimental to industry. At the same time, it would not lose the essential advantages of the Fisher scheme. It would be effective in securing comparative stability in the price level and it would be automatic in its application. It would avoid the necessity of Government interference to which so much objection is raised in financial circles. The Government would simply fix comparatively elastic limits and would leave the real control in the hands of the banks.

11. *An International Draft Convention.*

It would be necessary, in order to secure full value from the scheme outlined in the preceding section, that it should be almost universal in application. With a view to securing such universality a Draft Convention of the following tenor might be prepared for submission to the various States.

Each State ratifying the Draft Convention would undertake to establish a "normal" level of prices, around which it would endeavour by the means at its disposal to stabilise the price level.

It would undertake to define this normal level and to communicate the definition to the Administrative Office responsible for the application of the Convention.

It would define also the maximum and minimum limits

within which it would endeavour to control prices. These should not exceed 4 per cent. rise or fall from the normal, but might be less.

It would undertake to give effect to the Fisher Scheme at a point 5 per cent. above or 5 per cent. below the normal.

The Convention would be binding for ten years from the date of application for each State signatory (long enough to cover a complete cycle).

J. R. BELLERBY

International Labour Office,
Geneva.

FINANCIAL ASPECTS OF AMERICAN IMMIGRATION

MIGRATION of human capital results from influences similar to those of other capital transfers. Tending to gravitate towards those regions where the rate of return offers the greatest attractiveness, the movement of population may be likened to a short-time loan as exemplified by the " birds of passage "; or it may involve a transfer of national wealth, whenever the change of residence becomes permanent. If the new-comer is a pleasure-seeker on a temporary stay, he can be regarded both as a national loan and as the objective of a steady flow of remittances from his native land. If he comes as a wage-earner with the purpose of transferring his residence permanently, then he himself acts as the capital transfer. Likewise, it is correct to state that when a Scotchman, with large funds invested in home securities, settles in America, not only is there a transfer of wealth of person, but also the funds in Scotland become American capital invested in Scotland.[1]

The flow of goods responds to economic laws exclusively. The flow of human beings, however, has certain dissimilar features, notably because human capital is a direct agent, is both a producer and a consumer, cannot be owned outright or mortgaged, is not an interchangeable unit, and can never be treated alike because of differences in age, sex, literacy, habits, industry, and material condition. Yet nowadays, in most cases the movement of peoples has a predominant economic motive. Certainly this is true as applied to America. Professor Carver states, " The reasons given in favour of the restriction of immigration are purely economic. They relate wholly to the problem of improving the conditions of the lower grades of labour." [2] No longer is it true that American immigration arises from a desire for religious or political freedom. The motive is gain, pure and simple. And in the quest, all conditions, especially travel, are made as easy and simple as possible through the media of tickets prepaid by relatives and friends, publicity literature, and special facilities by steamship and railway companies.

[1] For the best treatment of this too little-understood subject of population transfers, consult Josef Grunzel, *Economic Protectionism*, 1916.

[2] *Principles of National Economy*, 1921, p. 761.

But in the study of this complex economic problem, which in the past has been directed mainly towards questions of standard of living and of the industrial development of the State, a highly significant aspect has been overlooked by most authorities on the population problem. I refer to the strictly financial feature.

Why not make a reckoning of the money transfers which result from human migrations? The importance of the phenomena is self-evident. What is the best method of approach? In the following brief treatment of the subject the writer gives certain of his preliminary findings with special reference to international movements of human capital and of capital goods.

On a strict time basis, an analysis might be attempted in accordance with (*a*) the period commencing with the emigrant's preparations for departure and extending until his arrival at destination, (*b*) the period away from his native land, and (*c*) the period (true only of temporary emigrants) beginning with the preparations for return to the mother country and extending until his arrival there. Period (*b*) is the most important time for observation. Periods (*a*) and (*c*), concerned with international migrations of people and their personal effects, cause expenditures for transportation and supplementary items. In an attempt to produce facts, moreover, it seems to me confusing to make the distinction [1] between " expenditures of immigrants and tourists " and " remittances to friends," since we know that funds are transmitted in countless ways and at no definite time periods.

My financial elements are based on (*a*) the personal value of the immigrant, (*b*) the goods or money he causes to be transferred to the foreign country, (*c*) the goods or money he causes to be transferred to his native land, other than " remittances," (*d*) remittances to his native land, and (*e*) the personal value of the returning emigrant.

What is the financial worth [2] of the immigrant (outgoing emigrant)? Despite the mathematical calculations of Cantillon, Engel, Farr, Becker, Kapp, and others, this query admits of no definite answer. A figure commonly cited has been £200, approximately $1000; but this amount was derived from conditions

[1] Adopted by Sir George Paish in his memorable report on *The Trade Balance of the United States*, Report National Monetary Commission, 1910.

[2] This is neither a fantastic nor a purely commodity conception. It may be easily defended in its proper use. For instance, this method invariably is resorted to by the conspicuous alleged friends of the new-comer, namely, the anti-restrictionists.

prevailing decades ago, when real prices were much less than they are now. The usual basis of this computation was the average cost of bringing up an average person under average conditions until the average time of departure for another country. Obviously, the employment of the mythical average took scant account of sex, literacy, material condition, occupation, new environment, and so forth. As a hit-or-miss proposition, the "cost of production" adherents were bold advocates when they asserted that the economic value of an individual was in proportion to the public and private expenditures incurred in his behalf. But this proposal not only assumed a static money value regardless of whether the individual resided in Manchester, Monte Carlo, or Singapore, but also failed to recognise the inexorable laws of human demand and human supply. The utilitarians stood on firmer ground.

There is one method of placing a money value upon an individual which possesses real merit. Referred to by Professor Mayo Smith as "scientifically correct and . . . the only one to be employed if we are determined to express in figures the value of this increase of our labour force,"[1] it consists of an application of the principle of a life annuity.

On the subject of "life property," the computations of Dr. William Farr made nearly three-quarters of a century ago are still followed as the best basis for reckoning. The two determinants are the value of the individual and the value of his services. Briefly, the method was to prepare detailed figures relative to agricultural workers at different ages by taking into account future earnings, cost of future maintenance, and excess of earnings over cost of maintenance, expressed in terms of "present value" and of the "annuity equivalent" at different interest rates. In his notable work, *Vital Statistics* (1885), Dr. Farr accorded the male agricultural worker a net value of £150: by extending the calculation to the entire population of the United Kingdom, the standard declined to £110. Applying this valuation, he took account of the adult male character of the emigration from the United Kingdom in the year 1876, and arrived at the conclusion that the value of the individual emigrant was £175 per head. Thus we may consider the situation as that in which two emigrants were valued at as much as three persons remaining at home. Whether or not we are willing to admit the validity of these conclusions, nevertheless in principle nothing more satisfactory has been presented than to take the

[1] *Emigration and Immigration*, 1890, p. 109.

reckoning of age and services in order to compute the economic value of the migrant.

Despite the inferior type of present-day immigration into America from southern and eastern Europe in contrast with the influx half a century past from northern Europe, the enhanced nominal and real wages of labour in America have been accelerated to such an extent that certainly no injustice is done to the "average" present-day immigrant by according a financial worth of at least £200 *per capita*. Doubtless £300 would be nearer the truth.[1]

Frequently the American immigrant arrives on a prepaid ticket. The *Report of the Immigration Commission of New York State* (1909), in referring to steamship ticket agents, stated that "from 60 to 80 per cent. of the business done by these authorised agents in New York State consists of prepaid tickets, purchased in this country to be sent to the intending passenger on the other side. This is always an order, that is, something which must be exchanged for the real ticket, and in no case is it good for passage until such exchange has been made." Various estimates place the percentage anywhere from ten to sixty.[2] Foreign emigration to the United States, therefore, has been made easier by assisted money contributions, while modern steamships have done away with the former hardships of prolonged travel. Doubtless the steamship tickets, largely paid for by savings in America, must have amounted to at least $40,000,000 annually when immigration was at its height. Considerable amounts (no figures available), usually in the form of money orders, are sent abroad for the purchase of tickets at the place of embarkation, paid for largely by immigrant remittances.

Professor Mayo Smith, in his article on immigration (he

[1] Accruing expenses which fall upon the immigrant must be taken into account. The United States Department of Commerce and Labor, Bureau of Labor, *Report No.* 72, 1907, pp. 411 12, stated that "before the immigrant can realise any return from his labor in the form of American wages, he must incur the following expense or indebtedness, for even if one or all costs are prepaid for him by relative, friend, or other person, he eventually pays them all by deductions from his wages or otherwise: (1) Cost of preparation at his home in Europe for the journey, (2) cost of transportation from his home to the European seaport, (3) cost of emigrant head tax to his Government, (4) cost of immigrant head tax to the United States Government, (5) cost of steamship transportation, European port to the United States, (6) cost of labor agency for securing employment at port of entry, if used, (7) cost of transportation, United States port of entry to place of employment, (8) cost of living from port of entry to place of destination." Many of the same items occur again if the stay is a temporary one.

[2] Probably 40 per cent. is a conservative guess. F. Kellor, *Immigration and the Future* (1920), gives 60 per cent. of tickets as purchased with American wages.

excluded transients) in Palgrave's *Dictionary of Political Economy*, wrote that the direct gain to the country of immigration is measured by (*a*) money or capital they bring in, and (*b*) the economic value of the immigrants themselves. The second consideration has already been discussed. With reference to "money or capital" brought in, no reliable figures are possible, since an immigrant furnishes information only when money amounts to less than $50.00 per person; moreover, children and other dependents make no money showing. In the fiscal year ending June 30, 1920, 51·4 per cent. of our immigrant aliens exhibited less than $50 each, compared with 44·6 per cent. in 1919, and 82·7 per cent. in 1910–14.[1] These percentages probably understate the real situation, since relatives, friends, and padrones make advances in order to aid their admission both before and after the arrival of the new-comers. The Immigration Commission found that the recent immigrants brought in only about one-third as much as their predecessors.[2] In this respect there is a wide variance between nationalities, and also between citizens of the same country, as is shown conspicuously by the amounts brought in by northern Italians and southern Italians respectively.

There seems to be a fairly general agreement that, in the aggregate, the amount of money individually taken out of the country exceeds that brought in in person. This is certainly the

[1] *Annual Report of the Commissioner General of Immigration*, 1920, p. 43.

[2] The goods or money brought into a country amount to a considerable sum, even though most of the recent American alien immigrants are of a low moneyed class. The Immigration Commission has collected evidence which would seem to indicate a relation between illiteracy and money brought *per capita*. After analysing earlier data for immigrants arriving at the port of New York during 1899, the conclusion is "that even among the illiterate races, the more illiterate bring the less money." An instructive table was reproduced in the *Immigration Commission Report*:

Money *per capita* shown on admission to the United States by European immigrants (including Syrian), fiscal years 1905 to 1909, inclusive, by class of immigration.

(Compiled from reports of the United States Commissioner-General of Immigration.)

Class.	Total number coming.	Total number showing money.	Total amount of money shown.	Average *per capita* Based on total coming.	Average *per capita* Based on total number showing money.
Old immigration	1,529,272	1,105,395	$61,018,916	$39·90	$55·20
New immigration	4,018,567	3,030,621	63,623,404	15·83	20·99
Total	5,547,839	4,136,016	124,642,320	22·47	30·14

case now, since the number of returning aliens is a much larger percentage of the total movement due to the barring of numerous immigrants from southern and eastern Europe under the terms of the Per Centum Act of the year 1921.[1] Moreover, as the returning aliens are generally those among the migrants who have amassed the greatest wealth, it would not be surprising if the cash personally taken from the United States exceeded by 100 per cent. that brought in simultaneously—an observation which does not appear unreasonable when reference is made to Austrian total emigration figures. For, during the period 1903–10, returning Austrian emigrants brought on their person a minimum of 2000 kronen *per capita*, or a total of at least 80,000,000 kronen. This amounted to 32 per cent. of their yearly remittances.[2] There is no evidence to show that alien immigrants leaving America in the last decade were less thrifty than the earlier Austrian emigrants, many of whom returned from temporary residence in America.

Sir George Paish set as the average amount carried out by American alien emigrants " not more than $200." This estimate, made nearly fifteen years ago, seems too low in view of the personal appearance [3] and what we know of these returning emigrants. My study would lead me to establish an average of $400 *per capita*, which would mean, based on pre-war and present alien emigration movements respectively, that from $120,000,000 to $80,000,000 should be allowed for these special " invisible " international money transfers. In magnitude, either amount is in excess of the normal American exports of cotton manufactures per annum.

In addition to the money carried on the person, either the immigrant or the returning alien emigrant usually causes funds to be sent in other ways. The Commissioner of Immigration at New York stated in his *Report for the year*, 1901, that " instead of bringing money with them, it is becoming more and more common for immigrants to send it ahead through banking institutions; but no one has attempted to state the amount thus sent." The writer has no estimates of any kind, although it is probably safe

[1] For particulars of this Act, as well as national emigration movements in which America appears prominently, see Manchester Guardian Commercial, *Reconstruction in Europe*, section 10, Emigration, November 16, 1922.

[2] Grunzel, *op. cit.*, pp. 118-19.

[3] Why have no rough estimates been attempted for personal belongings other than money? Yet certainly they cannot be neglected entirely. Consider, for example, the transfer of personal effects in the case of the homesteader. No reliance is placed upon the household and personal effects returns in the foreign commerce figures.

to guess that millions of dollars are involved for the debit account of the mother country and to the credit of America. When sums are transmitted in the opposite direction, they are included to a considerable extent among immigrant remittances, but we are wholly in the dark regarding emigrant remittances. Among other money transfers are (*a*) the foreign currencies purchased in the United States by departing aliens,[1] and (*b*) letter transmission of money by ignorant foreigners suspicious of American banking institutions or desirous of causing no undue excitement occasioned by the sight of a registered letter. The money set aside for American banking accounts, for investments in America, and for loans to friends cannot easily be estimated.

However, the two leading considerations relative to immigrant money transfers are total earnings and savings, and funds derived from these savings, sent abroad and known as remittances. Among the many estimates that have been made relative to the welfare of population in America, one of the most quoted is to the effect that foreigners can save one quarter of their earnings when they are content to live largely according to their former standards. The northern Italian earns more than the southern Italian but frequently saves less. Depicting conditions a decade and a half ago, the Immigration Commission found that the income of a thousand southern Italian families living in the cities might average $390 per year per male member. Allowance should be made that the average for the southern Italians was the lowest in twenty-two nationalities under observation. This figure, far below the standards set by American minimum wage commissions, meant that, "living upon less than these incomes, a family may be assumed to be spending its human capital."[2] Although human capital loss can never be measured, the toll which it takes is heavy. Still, in this article, savings concern us only in so far as they enter international accounts.

Remittances are utilised largely (*a*) to support members of the family and friends, (*b*) to enable compatriots to emigrate, (*c*) to purchase land or clear off mortgages, (*d*) to set aside funds for immediate investment or speculation or for future spendings. Professor C. F. Bastable, discussing the transfer of industrial agents from one country to another, wrote that "the influx of foreign capital resembles an acceleration in the speed of saving,

[1] C. F. Speare, *North American Review*, November 1907, estimated that for this purpose alone, foreign bankers in America annually imported foreign currency equivalent to $10,000,000 in kronen for Hungarians, and a similar amount in lire for returning Italians.

[2] R. F. Foerster, *The Italian Emigration of our Times*, 1919, ch. xx.

and we may reasonably hold that the final result will not be very different in either case. In this way the international movements of labour and capital become assimilated to the ordinary processes of economic life, and may be regarded as the same in their general effect." [1]

Unquestionably, remittances from foreign-born in America to relatives and friends constitute an enormous sum. In the long run they are the largest "invisible imports" on the American international balance-sheet. For the years 1919–21 inclusive, immigrant remittances and relief aggregated $1,800,000,000. Omitting the extraordinary $2,375,000,000 due in 1919 on net international Government payments account, the combined items of immigrant remittances and relief (the former much larger) had a clear margin for the three-year period, exceeding investment abroad, tourist expenditures, freights, net imports of gold or any other account on the debit side. International financiers have taken scant notice of the fact that the American balance of trade in 1921, amounting to $636,000,000, was offset largely by the immigrant remittances alone.[2] At best our source data are weak. Professor Mayo Smith reported faithfully that the exact amount of remittances from American immigrants had never been discovered.[3] Mr. Speare and the Immigration Commission

[1] *The Theory of International Trade*, 1897, p. 158.

[2] The foregoing figures and deductions, taken from *The Review of Economic Statistics*, Prel. Vol. IV. Number 3, have not taken into account all items which might be considered. For example, foreign tourists in the United States, judged by Paish as spending $30,000,000 annually; remittances from Americans resident abroad; American fortunes which are used for European dowries; speculation in foreign currencies; expenses of American Government and private offices abroad, and foreign in America; certain forms of capital taken by Americans who settle in Canada, Mexico, Cuba, etc.; and foreign purchases by military and naval forces. A tremendous item during the World War consisted of commodities, transported on American naval and requisitioned ships, which do not appear in the official trade returns. Another obstacle is the unusual practice of valuing American imports at the wholesale price in the country of origin. Hereafter, those articles which are subject to American valuation will be accorded values which include freight, insurance, and miscellaneous charges, thereby giving an appearance of a less "favourable" trade balance. Able discussions of foreign trade figures are given by Sir R. Giffen, *Journal of the Statistical Society*, Vol. XLV. pp. 181–296; G. M. Fisk, *International Commercial Policies*, chapter xvi; F. R. Rutter, *Quarterly Publications of the American Statistical Association*, Vol. XV. pp. 16 34; publications by the Treasury and Commerce Departments. Addenda to the excellent Harvard studies would probably result in larger "visible" and "invisible" export items.

[3] *Emigration and Immigration*, 1890, pp. 99-100. He states further that the British Board of Trade had included remittances in the "Statistical Tables relating to Emigration and Immigration from and into the United Kingdom," but abandoned the experiment in 1888 because private bankers were unwilling to furnish the desired information.

make no claim for completeness or accuracy. Sir George Paish reported that "neither the banks nor the express companies are willing to furnish the necessary information to enable an estimate to be made of the situation at the present time." The immigrant banks are reluctant to furnish data, partly due to suspicion and partly to their manner of conducting business, whereby frequently personal and customers' accounts are merged. Other practical difficulties are, that (*a*) there is no way of separating non-commercial from commercial bank drafts; (*b*) it is difficult to distinguish between various types of "invisible" payment, such as tourists' expenditures, relief, currency speculation, and immigrant remittances; (*c*) the currency specified in the foreign exchange is no clear index, since international remittances payable in any country may be drawn in dollars, pounds sterling, and other international currencies; and (*d*) there is no way of knowing the exact rate of conversion for the single transaction. The daily published rate is merely a barometer. But anyone familiar with the conditions cannot question that hundreds of millions of dollars leave America yearly in the form of immigrant remittances. For the post-war period my estimate is from \$400,000,000 to \$500,000,000 per annum.

The alien immigrant frequently returns to his native country. From the time that the immigrant sets foot over American borders and until he leaves the country his economic status has obviously undergone a change. Has his residence in America made him a more valuable or a less valuable economic unit? Probably it is correct to state that the former emigrant returns to his native land with an enhanced earning capacity, and with some store of wealth in addition. There are notable exceptions in the instance of persons, absent from their country during the most productive years of their life, who have undergone disease, physical strain, or injury. Nor should we overlook the frequent instances of the successful migrants who return to live a life of idleness in small communities where they establish the fashions and habits of the neighbourhood.

Yet there seems to be every justification for assuming that the knowledge and experience gained in America must cause, as a general rule, an enhancement of the personal worth. The actual or percentage difference between (*a*), the personal value of the immigrant, and (*e*), the personal value of the returning emigrant, is difficult to ascertain, although certain standards of measurement can be devised. As far as the writer is aware, no

figures have been compiled which contrast the changed economic value of any single individual or of any racial group.

This contribution to a neglected aspect of the perplexing immigration problem is presented with a keen appreciation that the sociological features have been almost wholly unmentioned. On the financial side, the accumulated material presented opens the door for the introduction of a fresh statement of principles relative to immigration, since we can proceed by gauging direct and indirect losses in terms of the economic worth of the individuals and of the goods or money they cause to be transferred from one economic sphere to another. Primarily, the parties concerned are the immigrant, the emigration country, and the immigration country.

The relation of immigrants to land values and to earnings of steamship and railway companies is intimate. Among vital considerations of a social-economic character, there is considerable testimony that these foreign-born restrict the reproduction of native population, congregate in large cities, reduce wage standards, cause poverty, disorganise industrial organisms, accelerate periods of depression, and interfere with normal national development. The evidence, however, is by no means one-sided. The proofs are open to question. To quote Mr. C. K. Hobson, "the existence neither of emigration nor of foreign investment necessarily signifies that a country will in the long run be poorer in population, in capital invested at home, or in the well-being of its inhabitants." [1] For America, it is true that immigrants start a net outflow of money payments; thus from the view-point of the mercantilist, America exhibits marked evidence of "weakness." But the correlation of immigrants with gold movements and trade balances has never been discussed adequately.

As an illustration, a merchant from Syria establishing himself in New York City generally brings little capital to be added to the wealth of the immigration country; but, nevertheless, he becomes a mighty factor *per capita* in extending the industry and trade of his native land. He is a prominent agent in the adjustment of both imports and exports in Syrian-American trade. Similarly Greeks, Armenians, and Italians in America are exerting great influence on international trade and, moreover, are tending to drive out native Americans from both domestic and international commerce. Again, one important reason why

[1] *The Export of Capital*, 1914, pp. 229-30. Compare the views with those of John Stuart Mill on the allied topic of colonisation.

the outright importing interests in America received so little consideration in the hearings on the present Tariff Act was that these firms were officered largely by foreigners, so that in some cases prominent houses were compelled to depend on minor executives to plead the cause of nationalism.

There revolve around the immigration question causes and effects related to the sharing of the public finance "overhead," to industrial and commercial development, to movements of capital, to movements of trade, and to other intricate questions. Does the Italian in America continue to buy Italian products? If so, what is the effect on Italy's national economy if America raises the tariff on spaghetti or cheese? Also, in what sense do immigrant savings represent labour protection, and in whose interests? Let the economists take the lead in the presentation of clear facts and well-organised deductions.

Why not construct an international immigration sheet on the plan of the international balance of payments? Even if there may be no general agreement on social measurements, certain significant financial transactions as suggested above can be presented. In this way we should be enabled to get away from the conception of lumping together new-comers in our midst as mere components of a "human anthill," to apply a phrase of John Stuart Mill. One sure result would be, between any two countries or in a compendium of all countries, that there would be the phenomena of marked tendencies away from international equilibrium, since real losses and real gains would never completely balance. What one country might lose, another country might gain, but seldom—probably never—to the same extent.

ELIOT G. MEARS

Stanford University, California.

THE DOCTRINE OF INDEX-NUMBERS ACCORDING TO MR. CORREA WALSH

Now that fresh interest in the "making of index-numbers" has been aroused by Professor Irving Fisher, the time seems opportune for appreciating the contributions to the subject which are offered by Mr. Correa Walsh in his treatise on the *Problem of Estimation*.[1] In this volume Mr. Walsh replies to the criticisms of his earlier work on the measurement of exchange value which were made in the ECONOMIC JOURNAL, 1901; he disputes the views which his critic has expressed in that article and elsewhere. The portion of the later work which is occupied by this controversy—no inconsiderable proportion—is specially considered here. I propose to exhibit and briefly comment on the main issues. They may be arranged under three heads.

I. *Fundamental differences about first principles.*—There is a fundamental difference between the disputants as to the scope of the problem, the meaning of change in the value of money. Mr. Walsh conceives general exchange value as a magnitude which can be measured with as much or at least the same kind of precision as length by a yard-stick (112, 117).[2] To me the conception appears somewhat indefinite as applied to two or a few articles and without relation to the theory of averages (E.J.[3] 1901, p. 408). It recalls the inchoate physics of the Greek philosophers (*ibid.*, p. 409), of whom Whewell writes that, though they had ideas and facts, "the ideas were not distinct and appropriate to the facts" (*Inductive Sciences*, Book I, ch. iii. § 2). It is not to be expected that differences of this kind, with respect to first principles, will be readily settled by argument. In vain Mr. Walsh prolongs through seventeen pages the dialectical inquiry which exercised Galileo: "If a horse worth 100 crowns is estimated by one person at 100, by another at 10, which of

[1] *The Problem of Estimation: a Seventeenth-century Controversy and its Bearing on Modern Statistical Questions, especially Index-numbers.* By Correa Moylan Walsh, author of *The Measurement of General Exchange-value.* London: P. S. King, 1921.

[2] The numerals in brackets unaccompanied with further specification refer to pages in Mr. Walsh's *Problem of Estimation.*

[3] The letters "E. J." are used as short for ECONOMIC JOURNAL.

these two estimates is the less erroneous, or are they equally erroneous?" He will not persuade those whose view of the question is that which is expressed in the review of Mr. Walsh's book in the *Journal of the Statistical Society* (1921, p. 625—a review initialled G. U. Y.: "A couple of lines to say that it depends entirely on how you choose to define erroneousness would seem to be sufficient comment."

The definition of erroneousness and of correct measurement would be very simple if we could assume that consumption remains unchanged. Sidgwick (among others) has pointed this out. But, he continues, so far as the habitual consumption does not remain unchanged between any two points of time, "we have to abandon the *primâ facie* exact method of comparing prices, and to substitute the inevitably more indefinite procedure of comparing the amounts of ability or satisfaction obtainable respectively from the different aggregates of hypothetical purchases." We may often obtain "a sufficient approximation" by a simpler method. "But if we work to get the *closest possible* approximation to the answer that we are really seeking, we have to fall back on a rough comparison of amounts of utility" (*Political Economy*, Book I, ch. ii. § 3). To the same effect Professor Bowley, with special reference to war-time with its violent changes both of quantities consumed and of prices, described that entity of which the magnitude at different times is to be compared as "satisfaction." He adds: "I have purposely used the vague word 'satisfaction' because I do not imagine that there is any quite definite quantity that can be measured" (*Journal of the Statistical Society*, 1921, Vol. LXXII. p. 351). But Mr. Walsh will have nothing to do with this subjective quantity. "There is no reference to utility, whether total or final. Utility has no more to do with measuring price variations than with measuring temperature" (83).

He dismisses with a sarcasm (117) another subjective variable of which it has been proposed to compare the magnitudes at different times: not the quantity of satisfaction or utility that is procured by money, but the quantity of effort and sacrifice, of disutility, that is required to procure money. For example, suppose that in the 'eighties of last century production of commodities in this country, say Q, as computed by Professor Irving Fisher (*Making of Index Numbers* passim), was increasing at a certain rate, while P, the price-level of the produced commodities, was decreasing at the same rate; then the value of money according to this definition would be regarded as stable

(Cf. E. J., 1918, p. 179, and Memoranda on the Measurement of Changes in the Value of Money, *Report of the British Association*, 1889, p. 161). Accordingly, it might be thought advisable not to interfere with the currency and to acquiesce in nominal wages remaining unchanged. If sensible people thought this course advisable, they would not be deterred by the unusual definition of a term from adopting the rule which it suggests. They would mind the Q's more than the P's.

Because Mr. Walsh does not gather with us in the definition of the problem, it does not follow that he scatters against us in the treatment of the problem. We adopt some of his maxims without understanding his first principles. So the utilitarian moralist, though with Sidgwick he may reject as a notion "to be avoided on account of its indefiniteness" (*Methods of Ethics*, Book I, ch. vii., and cf. *Lectures on the Ethics* of T. H. Green), "self-realisation" and other metaphysical phrases, may yet admire the conduct of persons professing those principles. Good fruit may be grown from an inscrutable root. We may not agree with Mr. Walsh that there is an entity called exchange-value the quantity of which, as it varies from time to time, can be measured with as much precision as a physical object. But we admit that there is a subjective entity, whether akin to satisfaction or to power, affording the perceptions of more and less, susceptible of the sort of measurement appropriate to psychical quantities. If Π_1, Π_2 denote the quantities at the times t_1 and t_2 relative to unity at an initial period, then we ought to be able to deduce a relation between Π_2 and Π_1. If P_{01} is a formula purporting to represent Π_1 by means of given quantities and price-variations, and P_{02} is similarly related to Π_2, then we ought to have $P_{02} = P_{01} \times P_{12}$ with such degree of precision as the definiteness of the quantity under measurement warrants. In short, I agree with Mr. Walsh that his "circular test" (98) ought to be fulfilled. At the same time I agree with Professor Irving Fisher (as I freely interpret the observations on the circular test in his new volume) that we cannot expect that test to be fulfilled when there are violent changes[1] in the quantities which enter from time to time (or from place to place) into the computation. For example, if the prices and quantities are each unity at the initial epoch, let the relative prices at the first epoch be p_1, p', . . . the quantities q_1, q'_1 . . . ; at the

[1] Violent changes in the quantities consumed with *some* change in the relative price, or, conversely, violent changes of price with some changes of quantity; or, as above, changes of both kinds violent.

second epoch $p_2, p'_2 \ldots, q_2, q'_2 \ldots$; and so on. Beginning with the case of two commodities, take at random any values for p_1, p_2, q_1, q_2, say respectively 110, 120, 130, 140. For p'_1 and q'_2 take any values in the neighbourhood of p_1 and q_2, say respectively 115 and 135; and for p'_2 and q'_1 any small values, say 10 and 5. Then, if we compute P_{01} and P_{12} according to the formula recommended as best by Mr. Walsh, the "ideal formula" of Professor Fisher, it will be found that the ratio of $P_{01} \times P_{12}$ to P_{02} is not, as it should be ideally, unity, but 1·78 : 1. *A fortiori* when we deal with three or more commodities; still supposing that the data are liable to change from time to time with any degree of brusqueness. For instance, let $p''_1 = 110$ $p''_2 = 7$ $q''_1 = 8$ $q''_2 = 145$. We have then $P_{01}\, P_{12} \div P_{02} = 2{\cdot}4$!

How then does it come about that Professor Fisher, operating with his ideal formula, and indeed with several other formulæ, throughout a period of six years found the circular test to be almost perfectly fulfilled (*loc. cit.*)? It comes about through the presence of two attributes: the *shortness* of the intervals between the dates of successive index-numbers, and the *sporadic* dispersion (the plurality and independent variation) of the prices and quantities. The steps must be short; and the crowd making them must "break step" in military phrase, must move like vehicles in a long straight street driven separately at various rates, not massed into two or three compact bodies, such as a column of artillery and a funeral procession (cf. E. J., 1901, p. 413). Through the co-operation of these conditions in a manner that can only be indicated here,[1] there become avail-

[1] Let us begin with the simplest form of index-number, No. 1 of the British Association Memoranda, Professor Fisher's No. 53, referred to by Mr. Walsh as Laspeyres' formula; in which the initial quantities only are used for weights. And, first, let the data be of the simplest species, that in which the weights are all equal. We may take, without loss of generality, the initial prices as each equal to unity. Let the relative prices at the point of time first after the initial be $1 + \alpha'_1, 1 + \alpha''_1, 1 + \alpha'''_1 \ldots$; and for the second date $1 + \alpha'_2, 1 + \alpha''_2 \ldots$, and so on (no α less than -1). We have then for P_{01}, if n is the number of prices,

$$\frac{(1 + \alpha'_1) + (1 + \alpha''_1) + (1 + \alpha'''_1) + \ldots}{n}, \text{ say, } 1 + \frac{\Sigma\alpha_1}{n};$$

and likewise for P_{02},

$$\frac{(1 + \alpha'_2) + (1 + \alpha''_2) + (1 + \alpha'''_2) + \ldots}{n} = 1 + \frac{\Sigma\alpha_2}{n}$$

Analogously,

$$P_{12} = \frac{\dfrac{1 + \alpha'_2}{1 + \alpha'_1} + \dfrac{1 + \alpha''_2}{1 + \alpha''_1} + \ldots}{n}.$$

able two leading mathematical principles, the differential calculus and the theory of probabilities. By the application of these principles the problem is transformed from its *primary* character, the comparison of subjective quantities, to a *secondary* form which assumes the character of objective science (E. J., 1901, p. 409).

There can now be constructed a " chain " of index-numbers, P_{01}, P_{12}, P_{23}, which fulfil the " circular test " approximately for proximate periods, as observed by Professor Fisher (*loc. cit.* pp. 276–297). The construction of the chain proposed by Dr. Marshall is explained and illustrated in the Memorandum presented to the British Association 1887 (p. 269). In that chain to form the weight for any, say the rth, link $P_{r-1, r}$ there was presumably to be employed a mean of the two adjacent quantities of the type q_{r-1} and q_r. If the conditions above specified were perfectly fulfilled, a good result would be obtainable by using only one set of quantities, only q_{r-1} or only q_r. But it is better, as the Committee of the British Association recommended (*loc. cit.* p. 249), to use *the mean* between the two quantities consumed at the two periods respectively. It is

Expanding in ascending powers of the small quantities of type α,

$$P_{12} = 1, + \frac{\Sigma\alpha_2}{n} - \frac{\Sigma\alpha_1}{n}, - \frac{\Sigma\alpha_1(\alpha_2 - \alpha_1)}{n}, + \ldots$$

$$P_{01}\,P_{12} = 1, + \frac{\Sigma\alpha_1}{n} + \frac{\Sigma\alpha_2}{n} - \frac{\Sigma\alpha_1}{n}, + \frac{\Sigma\alpha_1}{n}\,\frac{\Sigma\alpha_2}{n} - \left(\frac{\Sigma\alpha_1}{n}\right)^2 - \frac{\Sigma\alpha_1(\alpha_2 - \alpha_1)}{n}, \ldots$$

$= P_{02}$ + a residue, which is small because it involves only second (and higher) powers of the small quantities typified by α_1 and α_2, and still smaller because it involves *averages* of numerous more or less independent constituents, mean values which vary less from time to time than if the constituents moved together.

Now let us restore the weights w', w''—at first supposing them not to vary with the time. The reasoning is not affected by substituting for a', a'' . . . wa'', $w''a''$ . . ., and for n, Σw with the usual proviso that no one weight (or no small set of weights) is preponderant.

Next let us take account of the change in weight, say from w' to $w'(1 + \beta'_1)$ and from w'' to $w''(1 + \beta''_1)$ in the first period. The terms of the first order in the expansion of $P_{01}\,P_{12}$ will not be affected, the first powers of the β's cutting each other out. The second term of the expansion will be augmented by items which are *averages* of β's squared, or of β's multiplied into α's, in such wise that if the β's like the α's are small and dispersed with sporadic independence, the residue will fluctuate slightly, the steps made by the index-number will be short.

Now let us utilise in the formation of P_{12} the weights pertaining to the prices $1 + \alpha'_2$, etc., viz. $1 + \beta'_2$, $1 + \beta''_2$. First let us combine the two sets of weights after the manner prescribed by the British Association Committee of 1887. That is, for β'_1 in the last paragraph we shall substitute $\frac{1}{2}(\beta'_1 + \beta'_2)$, and so on. The index-number will be steadier because the compensation of deviations (on the part of the β's) is more fully carried out.

The like advantage attends the method of utilising both weights proposed by Marshall in 1887 and repeated in 1923; and Professor Fisher's " ideal " index-number.

best, perhaps, to employ for the construction of the links that form of average which Mr. Walsh independently invented and recommends as best, which Professor Fisher regards as the "ideal" index-number.[1]

The series of averages P_{01}, P_{12} which form the links of the chain might be compared to observations at successive times of a thermometer: physical measurements, yet indicating changes in subjective quantity. In these averages it might have been hoped that Mr. Walsh would find realised his ideal of a measurement as objective as "measuring temperature" (83). Temperature is but an average (of molecular energies). But the Measurer of General Exchange Value—notwithstanding some slight concession to the use of Probabilities (112)—still refuses a position of collateral importance to our secondary problem, still regards it as "a problem in probabilities entirely irrelevant to the main subject" (p. 109, Cf. p. 138).

II. *Apparent differences due to misinterpretation.*—Less fundamental differences may better admit of being reduced by mutual explanation. Especially may this be hoped when the differences exist in the writings rather than in the minds of the disputants: apparent differences due to careless and ambiguous expressions. For instance, there is an explanation of the inconsistency surmised by Mr. Walsh between the recommendation of "aggregates" in the ECONOMIC JOURNAL for 1918 and the recommendation of the formula numbered (10) by Mr. Walsh in the British Association Memorandum of 1887 (p. 266). The term "aggregate" in the passage first referred to was not used in the specific sense assigned to it by Mr. Walsh and others, but in the general sense of an "arithmetical" combination contrasted with the Median and Geometric Mean considered in that context. The term aggregate in this general sense included formula (10). Again, it was not intended to disparage the use of two variables as representative of several (108), when, as in the reasoning just now employed, "the propositions there enunciated are readily adapted to any finite number" of variables—to repeat the proviso made on a former occasion to justify this sort of abridgment (E. J., 1910, p. 443).

A less easily unravelled misinterpretation arises from the circumstance that in this problem we have generally to deal with *samples*. Sampling involves the theory of probabilities in no simple fashion. The subject occupies three chapters of

[1] $\sqrt{\frac{\Sigma q_1 p_2}{\Sigma q_1 p_1} \cdot \frac{\Sigma q_2 p_2}{\Sigma q_2 p_1}}$; Mr. Walsh's formula (9). Professor Fisher's formula, 353.

Mr. Yule's treatise, and some thirty of Mr. Bowley's pages (*Outlines of Statistics*, chs. xiii, xiv, xvii; *Elements of Statistics*, pp. 277–284, 329–337). It is not to be supposed that these powerful intellects were exercised so long about the simple "common-sense probability" (114) to which Mr. Walsh would have us restricted. On the contrary, they deal with the theory of errors, the most difficult and delicate part of the calculus, as Laplace remarks. It is a subject almost as many-sided, almost as provocative of controversy among those who see each only one side, as Political Economy itself.

Much logomachy arises from the presence of different assumptions in the minds of the disputants. Probability, as Mr. Keynes has properly insisted, is always relative to our knowledge; and it may be added that the methods of calculating probability vary with our data and hypotheses.

To illustrate this peculiarity, let us adapt one of Mr. Walsh's happy metaphors. "The process of comparing price-levels is rather like trying, on an always billowy sea, which has a flat bottom, and in which the quantity of water constantly varies, to obtain its levels (such as they would be if it were still) by averaging the various heights of different sections of the waves above the bottom (the zero base)" (70). Let us suppose that the surface of which the average level is to be ascertained is that of a creek connected with the outside sea in such wise that the height varies with the rising or falling tide. It is a sequestered creek, "in secessu longo," yet not so completely tranquil as that in which the storm-tossed followers of Æneas sheltered. In some places the surface is only ruffled by gentle ripples, but other portions of the surface are rumpled into the troughs and crests of a confused sea. Suppose that our means of observation consist of an apparatus by which we can ascertain at any moment the area—or "section" (*loc. cit.*)—of a billow, say q_r, and its average height, say p_r, so that $p_r q_r$ equals the quantity of water in the column standing on the area q_r. If now our observations extended over the whole creek, of course $\Sigma p.q. \div \Sigma q$ would give the quantity required, the average level of the creek, say P. But if we are limited to samples, observations taken at several parts of the creek but not over the whole surface, it is by no means certain that the said simple formula will afford the best value of P. With respect to fluctuations of equal area, it is certain that observations taken on more tranquil portions of the surface carry more evidential weight; their average is liable to a less probable error than the average of the more

dispersed observations obtained from the much-disturbed surface. So it becomes a nice question, "how much," in the words of one of the papers condemned by our author, "the principle of quantity should be cut into by the consideration of fluctuation."

Now let us vary the hypothesis and suppose that our *quæsitum* P is the average height of the houses in a town; that height which being multiplied into the area built over will give the cubical content of the buildings. It would not now be advisable, it might deserve the sarcasms of Mr. Walsh, to allow more weight to the observations of height in districts where there is greater uniformity of height. For there is now no guarantee that observations made in those districts may do duty for heights in other quarters as representatives of the sought average. It may well happen that uniformity of height is characteristic of small low houses built on a uniform pattern, for the use of the poor, while the loftier structures reflect by their diversity the variety of tastes which the rich are free to indulge.

From this illustration our readers will understand the relevance of the hypothesis that the change in general prices is connected with a common cause, such as a change in the quantity of money, or some less distinctively conceived agency which tends to affect each constituent of the average with one and the same increment—apart from the proper fluctuation of each due to sporadic independent causes. This is what our critic has not realised. He continually criticises methods appropriate to the creek as if they were applied to the case of the city. He ignores the relevance of more or less distinct knowledge about the circumstances on which it depends whether a good and stable average is obtainable. It is as if the prescriptions given by medical science for different cases were applied indiscriminately by one not conversant with the symbols of pharmacy. The confusion would more readily be incurred by one who believed that in reality there is only one case.

In this connection it may be admitted that if we are restricted by practical considerations to one prescription, it should not include adjustment of weights on grounds other than mass of value, nor other refinements, such as the use of the median. These are counsels of perfection, hardly adapted for common use; "*if in the present state of statistics and public opinion it appears* too difficult and delicate a matter to weight the data on the principle of fluctuation" (*loc. cit.* p. 288). "It may be doubted whether the practical worth of these subordinate modifications

corresponds to their theoretical interest" (*ibid.* p. 268 and context). If we are limited to a "general purpose" index-number (in the phrase of Professor Wesley Mitchell), that formula for general use should be a familiar one (E. J., 1898, pp. 189, 197).

The counsels of perfection were offered in a spirit which Mr. Walsh should appreciate, as being in harmony with his own excellent advice about the treatment of the problem. "It is a mathematical problem, needing to be solved in theory first" . . . "The others ('practical men') should take the solution of the problem of averaging from the theoretician, modifying it to suit their practical purposes" (89).

Altogether a considerable reduction of differences might be hoped for from mutual explanation conducted with good temper. But it could not be expected that any third party would follow with interest the process of disentanglement. Moreover, there would remain a certain amount of dissent, due to differences regarding the technique of Probabilities. I propose to exhibit the issues thus raised in a *third* section; which will be more appropriate to a Statistical than an Economic Journal.[1]

F. Y. EDGEWORTH

[1] See *Statistical Journal*, July 1923.

INDUSTRIAL POLICY

Industrial Negotiations and Agreements. (London: The Trades Union Congress and the Labour Party. 1922. Pp. 76. 8vo. Price 2*s.*)

British and Continental Labour Policy. By B. G. De Montgomery. (London: Kegan Paul, Trench, Trubner & Co. 1922. Pp. xxvii + 575. 8vo. Price 21*s.*)

Labour Policy—False and True. By Lynden Macassey. (London: Thornton Butterworth. 1922. Pp. 320. 8vo. Price 7*s.* 6*d.*)

The aftermath of the Great War must be linked in many memories with industrial strife and "labour unrest." That warrant is being given for some pessimism cannot be denied; and yet these three books should, we think, beget a wholesome trust in the relations of British employers and employed. While ugly facts and gauche sentiments could not be hid in such a wide minute survey, we have gained the broad impression from these keen searching scrutinies that the balanced temper and that discreet love of compromise which, illogically perhaps, avoiding both of two extremes, seeks and finds a middle course have not deserted the great mass of capable British manufacturers and merchants and sterling British working men and women in recent troublous times.

The huge waste of wealth caused necessarily or increased perversely by belligerent and later operations has removed the ground, never very sure, beneath large hopes of grand "reconstruction." But the informing comparison made by Mr. De Montgomery of the "political labour movement and labour legislation in Great Britain, France and the Scandinavian countries" between 1900 and 1922 must, we feel, be considered to have demonstrated, in favour of the first of the five nations concerned, not a few superior advantages, though he has pointed also to impending danger and existing drawback. In a similar vein of justified congratulation we read Mr. Clynes' preface to what he describes, with a partial regard that may be forgiven, as the record of the "immense amount of service rendered by Trade Unions to millions who benefit from their work." He

states the gist of the "achievement" recorded in detail in the first of the books we are noticing. The source from which it issues cannot be suspected of any inclination towards the claims of Capital, and the commentary betrays the twist caused by Labour's obsessions. But who of either party, or of the public that must benefit by industrial peace and suffer from its breach, can but rejoice to hear such words as these ?—

> "The duties of negotiation no longer come with any element of surprise. In most industries those duties proceed with automatic precision. Councils, Boards, and fixed Conferences bring together representatives of the two sides, and Agreements arise as the result of discussion and bargain. There are failures and breakdowns. There are occasions when differences are so acute that agreement cannot be reached, and accordingly there are industrial stoppages. But stoppages are few in comparison with the number of cases amicably settled through the medium of negotiation."

This most recent well-authenticated narrative of what has been done, in the main by "non-enforceable" agreements, can be commended to our croakers. It has confirmed our own persuasion, derived from previous English and American literature, that on the crucial question of "industrial peace" we are a generation in advance of the United States. That is one handicap to note when we are reckoning fearfully the pace of our most formidable competitor in business enterprise.

Nor does Sir Lynden Macassey's candid "study in economic history and industrial economics" give a contradictory verdict. His frank *exposé* of the miscalculation and prejudice of Labour's "false policy," and of the costly errors and disastrous sequel of much governmental action in industrial affairs, does not exclude a sanguine outlook. In the third, most novel, section of his book the statement of the "right relationship" between employers and employed points clearly and emphatically to likely means of marked improvement. A writer, who has the "utmost confidence," born of a wide and "practical experience," in the "robust common sense of the British employer and the British workmen" could not be discouraging. Let us note his actual words :—

> "Time after time, during the war, when an industrial catastrophe seemed inevitable, I have seen common sense, acting on the national genius for compromise, serve to prevent

both sides from going over the brink of the abyss that suddenly yawned. Along these principles a solution can be secured that will be stable and satisfactory alike to employers, the workers and the community."

This is the heartening speech of British practicality. It corroborates the view that in these timely books, taken together, a good dose of invigorating tonic is administered by no ignorant or bungling hands. The accord of such a trinity of experts is welcome, when some gloomy friends bid us mournfully despair of the commonwealth, and other avowed or secret foes predict with acrid glee its murder.

The books overlap. That for which the Trades Union Congress and the Labour Party are jointly responsible is concerned with only one of the topics treated by the other two. But Mr. De Montgomery and Sir Lynden Macassey travel over much the same ground, so far as the time covered is that occupied by the war itself and that which has since elapsed. They differ in some of their interpretation of conduct and incident, and the larger treatise of the Swedish writer, going further back, embraces reference to France and Scandinavia. On what has in fact occurred there is, substantially, accord between the three.

"Industrial Negotiations and Agreements" are discussed under the two divisions of "legally enforceable" and "non-enforceable" agreements. The temporary intervention of the State during the War to "control labour supply," to which the "establishing of rates" of wages was a "necessary corollary," is, not unfairly, dismissed as "rough and ready machinery," which, working with "much friction," could be justified alone by the "paramount importance" of the "national interest." More attention is fixed on the more permanent institution of Trade Boards, settling "minimum rates" which "tend," "in practice" to become "maximum rates," and on the provisions of the *Coal Mines Minimum Wage Act of 1912*. But, we are reminded, "compulsory arbitration has always been rejected by the British Labour movement." That stubborn attitude should be remembered, though it is overlooked by superficial precipitate apostles of the gospel of harmony. It is a significant, but not discouraging, consequence that "non-enforceable" agreements have been most instrumental in preventing strife and conserving peace. In this direction, where the guarantee is furnished by Trade Unions on the one side, but also by powerful combinations of employers on the other, as the means of representative negotia-

tion, the advance has been considerable. The service done is great. The most useful and felicitous office has been the opening of easy ways for interpreting, and adapting to the special conditions of particular localities, or undertakings, or classes, or individuals, the terms of a general arrangement made for whole industries or entire districts. As a mode for staying the development of a petty grievance or a minor misunderstanding into the dimensions of a large and long strike or lock-out such mechanism has amply proved its worth.

Of "conciliation," "arbitration," or that "mediation" which brings the disputants together, or reduces to the vanishing minimum in quantity and quality their differences, or, at the psychological moment, bridges the separating space, the first has in practice been most often, most widely and most successfully invoked. The entry of the State, following the lines of the third rather than the second, has been pushed forward, notably in the Conciliation Act of 1896, and, since the War, in the Industrial Courts Act of 1919, and it is possible, or probable, that a still further move should be made after the pattern set by Canadian legislation, insisting on preliminary public inquiry into the merits of a quarrel where the continuance of work of public utility is threatened with interruption. But, the pamphlet before us argues, the Whitley Councils, perhaps the most outstanding consequence of the War and its aftermath in this connection, have, in almost every case, in wage-arrangements, followed the "old lines," and brought nothing "new or revolutionary," and they represent, conspicuously, the method of "conciliation." The example of compulsory arbitration, in New Zealand, once so vaunted, does not now invite imitation. In Chapter IV, by contrast, of this pamphlet, on the "present organisation of negotiating machinery and inter-union action," and Chapter V on "collective agreements," we can inspect the abiding and indubitable triumph of conciliatory schemes, showing a great variety of elastic detail and applying to a considerable number of the important industries of the country. The record is plain. Much, very much, has been accomplished. The literal facts are faithfully exhibited, if the complexion of some *obiter dicta* is coloured so as to suit the readers for whom they are specially intended.

In the final chapter, on sliding scales, a curious evolution is traced from the growing disfavour, and, compared with former prevalence, the almost total disuse, of the old type of scale in which changes of wages followed on fluctuations of selling prices, to the extensive introduction of the new mode, by which

movements in the standard cost of living lead to a rise or fall of remuneration. Experience disclosed certain drawbacks in the former—an expedient once hailed, with perhaps ill omen, by a sober economist as the " greatest discovery " in the distribution of wealth since Ricardo's enunciation of the theory of rent. Still affecting, we are here told, " over 80 per cent. of the iron and steel workers," it concerned by 1922 " only about 0·2 per cent." of miners, while " at least 80 " scales of the second sort were in operation, dealing, so it was estimated, with some 2¾ millions of workers. But nevertheless they have " not been adopted by some of the largest and most important classes of workers, nor, in some cases, where they are in force, have they been regarded as satisfactory by all the workers." From both sides, as with the earlier scales, details have attracted criticism and provoked objection, such as those of the construction of the " index-number " used. But, furthermore, Labour, recognising that the arrangement leaves Unions free to "concentrate " upon an improvement in " real wages," may yet wish to dispute the basic rate. Capital, on the other hand, remaining liable to such annoyance, may be mulcted so heavily by the lack of correspondence of the rate of wages to selling-prices, or to the expense of other factors besides labour in the cost of production, as to lose or forfeit custom, and may withdraw, willingly or perforce, from investment and from enterprise, because the risks become too formidable. From the standpoint, too, of the rest of the community, Sir Josiah Stamp has lately urged, wage-earners have no equitable right, or at least no indisputable claim, to be saved from participation in the loss occasioned by diminished or impaired production. That may be reflected in a rise of price of the constituents of their livelihood, and at the moment we are confronted by the waste of war, aggravated by inflation. It is relevant to add that the recent agreement in coal-mining involved recognition, though it may be in a shape not fitted to satisfy, of a third variety of scale, whereby wages would depend partly upon profits. It is treated inadequately here as a reversion to the old first type.

This compact report, with its appended charts, is very fruitful in suggestion; but it has now detained us long enough, and we pass on to Mr. De Montgomery's elaborate and important treatise, filling seven times as many closely-printed pages. For full appreciation this would obviously demand the careful repeated study by its readers which evidently has been given to its preparation by its equipped industrious author. Within its limits,

which are wide, it is indeed exhaustive. No pains have been spared to get at all the facts. No trouble has been avoided to ensure their full and fair statement. The general plan is easy to grip, and the detailed execution does not fall short in clarity of exposition and logical arrangement of material. With most of the commentary and reasoning we find ourselves in substantial, if not entire, agreement, though we can understand that some critics should take offence at very positive pronouncements on vexed questions, and at censure, or approval, that certainly does not lack confidence or decision. Discussing, first, separately, the general development of the political labour movement in each country treated, Mr. De Montgomery then attempts a summary survey of them all together; and in the second portion of his book he deals with " special issues " of " labour policy," such as the legal position of trade unions, conciliation and arbitration, unemployment and nationalisation. The " study " is based primarily on " official documents and authoritative expressions of opinion," but information has also been got from the " great mass of Labour literature " and from " correspondence and conversation with politicians, Labour leaders and employers."

Our author has cast his net wide, and we detect few omissions. We might indeed suggest that for France Dr. Estey's *Revolutionary Syndicalism* should have been consulted, and that a disproportionate use, which is not, however, unnatural, is made in the English section of a Scandinavian authority. Some, too, of the evidence of English origin does not, we think, carry the full weight attached to it here. We doubt whether there is sufficient warrant for declaring that " *Made in Germany* " " opened the eyes " of many people to the " precarious industrial situation " of our country; nor should we subscribe without reserve to the account given of the industrial outlook of England just before the War. We, again, are bold enough to hold, and to assert, that unconscious, still more, conscious, Socialism would misrepresent the real permanent convictions of the bulk of the rank and file of English labour. Such a creed, or some of its best-known articles, have been slimly brought into prominence by the tactical craft of the astute intellectuals of the Labour Party, and the infection has been subtly spread, we regret to note, through membership, temporary, if not permanent, of the staffs of some government departments. Capturing at any rate the authoritative vehicles of public expression a clever advertising coterie, so it appears to us, has, for the time, dragged in its train, with unwilling, if it be politic, acquiescence, the less vocal, but not less statesmanlike,

Trade Unionist officials of the older, soberer, more responsible type, while younger inexperienced agitators have vented defiantly their enthusiasm in glad clamorous response to the red flag held out to them of internecine enmity to Capitalism and Capitalists. Yet we must allow that we do not see how in these circumstances it was possible to consider, or describe, the political Labour movement, even in this country, as not becoming more and more tightly tied outwardly to the fetishes and dogmas, the positive large overthrow and the vague negative reconstruction, for which open and avowed Socialists feel, and exhibit, a complacent but servile regard. Sir Lynden Macassey, we understand, supports some such view of the inner position as we entertain, but it is certainly this apparent common trend which Mr. De Montgomery is so careful to trace meticulously in the earlier portion of his book. He contrives, however, to bring out also important differences in the process, as it has been conducted, or has moved, in the various countries he considers, and not the least merit of his treatment attaches to such *aperçus*.

In France the great number of small independent employers has been a factor of importance. French Socialism is fissiparous. It is less disciplined than that of some other countries. The origin of the extreme recent type, Syndicalism, is found across the Channel, though it has spread elsewhere, assuming, however, among British working men a different guise. Mr. De Montgomery notes the curious contradiction that, while present social and economic inequality in Britain can be traced in large measure to the uneven distribution of landed property, dating far back, the average British labourer possesses and displays the "practical sense" and the "deliberate mind" associated in theory and fact with peasant owners. Unlike the "logical" Frenchman he gives his regard, not to the final goal, but to the next step. He is not usually swayed by large ideas, and Sir Lynden Macassey instructively maintains that the plain man in his ranks cares little, if at all, for the vast projects of his Socialist instructors, and is not at heart concerned to push through to the bitter end, with such prompting, a "class war." Indeed, Mr. De Montgomery shows, the "aristocracy" of Labour often keeps proudly aloof from the lower "democracy." On the other hand, as he argues with much force, "ca' canny" is the most obvious danger which now menaces the economic future of Great Britain, needing, especially, as she does, a maintenance of output in proportion to her population. In France, by contrast, the workman is so "realist," that he fastens his notice and directs his efforts to increased production.

He welcomes, so we are assured, even " labour-saving " machinery, and he is not suspicious of " scientific management." Similarly, French Socialism is compelled to compromise with peasant ownership, and such private property in land is inconsistently countenanced on the specious plea that it is held for " use " and is not worked for " profit."

Examining the position in the Scandinavian countries Mr. De Montogmery shows that in Sweden, where a Socialist Ministry has held office, and, as in Norway and Denmark, much State activity, and large State property, exist, the presence and the claims of peasant proprietors have too to be borne in mind by reconstructors, and it has been laid down expressly that nationalisation, before recognition or extension, should prove itself compatible with increased output. In Norway, however, Socialism of a violent hue, seeking alliance with Bolshevism, is noticeably evident, but in Denmark the labour movement is at once older and more moderate than in the other two Scandinavian lands.

On separate subjects Mr. De Montgomery is equally informing. We would direct attention to a few of his remarks. On the exact character and results of the Osborne judgment he sheds new light. It would be difficult to dissent from his conclusion about unemployment that the rate of wages must, in the end, conform to the supply of and the demand for labour; nor could he easily be shown wrong in the emphasis placed, in his treatment of nationalisation, at any rate as a general policy, on the paramount need of maintaining private thrift, although, when he turns to special applications of the idea, he rightly, no less aptly, argues that the common allegation of the evil of bureaucracy should be weighed according to the particular circumstances. He pertinently points on the former question to the prevalence of the less perplexing " seasonal " and the absence of the more difficult " cyclical " unemployment in France and Scandinavia compared with Britain, and on the latter matter he again refers to the larger extent of State property in the foreign countries contrasted with our own. Nor is it without significance that, as he says, " collective agreements " on wages and conditions of work have received legal sanction abroad, while in England the situation can be summarised as " voluntary quasi-arbitration combined with semi-voluntary conciliation."

Sir Lynden Macassey's contribution to the " labour problem " has justly been greeted by the public and by many experts as an illuminating timely essay. He writes, he reminds us, neither as employer nor as politician. But he claims experience gained

from "some three thousand close and intimate conferences during the war with employers' organisations, Trade Union executives, district and branch committees, together with many mass meetings . . . to say nothing of having one's finger daily on the pulse of over one million men." He is, his readers will gratefully testify, a shrewd, independent critic and a keen sensible observer. His attitude throughout is "realistic," and we feel that we are in intimate contact with concrete men and things and are not put off with any abstract speculation. The air is free from mistiness, the wind direct and strong, the temperature bracing.

Sir Lynden is an unsparing critic of what he describes in his first part as the "false policy" of Labour, and he shows no hampering scruple in judging "Government labour policy" in his second part. But, while he animadverts severely on mistakes made by the Government during the War, as in idle menace followed by tame concession, or in tardy attention to a critical situation which required strong prompt notice at the outset, he affirms the necessity, and urges the advantage, of labour exchanges as an effective instrument for dealing with pressing matters that could not be burked, he holds stoutly that the temporary provision made for unemployment, large and lavish though the expenditure was, prevented a more perilous upheaval, and he maintains that a distinct Ministry of Labour is now still required to fulfil important duties. Similarly, he demonstrates his impartiality and exhibits his sagacity in what he says about Labour, its leaders and its rank and file. He properly distinguishes between the former and the latter. As we have remarked, he treats the average British workman as an ordinary British citizen, animated by a love of fair play and guided by a sense of what is just. He has, Sir Lynden contends, no deep affection for Socialism, and no determined penchant for class strife. The "false" Labour policy announced by some who profess to "lead" sets its face erroneously against "Capitalism," which it misdescribes, or misconceives, and it fancies nebulous vague phrases rather than works out or puts forward definite, careful, tangible plans. And yet, as Sir Lynden shows in what we deem his most valuable third part, industrial discontent should not surprise. The "true" Labour policy explores its causes, and seeks their removal.

The workman may be crudely ignorant of economics, he may not know, or may miscalculate, the factors of wage-determination, and he may draw wrong inferences from the spurious prosperity of the high prices and swollen earnings of war-time.

But genuine and potent reasons for discontent can be discovered. They can be found in increased education begetting, or nurturing, a natural desire for an improved standard of general comfort, in a bad environment of housing and the like, in a justified dread of recurring unemployment, as well as in widespread suspicion of the motives and the behaviour of employers, and in a belief, confirmed by events, in the power of agitation to extort concessions. Even a " ca' canny " policy, temporarily advantageous, though finally injurious, may find apology, if not excuse, in the extreme subdivision of labour accompanying mass-production, which robs the individual worker of all interest in a fine, finished product as a whole, and substitutes, with deadening influence, monotonous, perhaps automatic, repetition.

To meet these conditions, some of which, we fear, seem inevitable, Sir Lynden suggests various modes of conduct, by which the three essential requirements of " contentment, co-operation and production " in industry may be guaranteed or at least promoted. He examines indeed shrewdly and suggestively what should be the right relationship of Government to industry and that between industry and the community. But he is most fresh and most apposite in his treatment of the right relationship between employers and employed. Here he insists on recognition of the human aspect and aptly urges that the possession of technical ability does not involve command of the supreme art of management of men. The one, however, is sought for high and low, and is handsomely remunerated. The other is too often lost sight of altogether, or is treated as of minor or subordinate consequence. Yet Sir Lynden but reinforces here the known fact that the attitude and deeds of the foreman who is present are a more fertile source of irritation and a more obstinate cause of friction than the disposition or the conduct of the employer who is in the background.

As we bring to a close our notice of these three interesting books we would repeat that, together, they supply the harmonious component parts of a faithful picture of the existing state of the industrial world around us, which should be seen, and inspected, by every economic student. We are glad to think that they also offer cheering glimpses of a bright future for our country. Such rational expectation, resting on firm fact, should discount the influence of the fantastic whims of academic Socialists and of the sombre forecasts of political Cassandras which have lately got exaggerated hold of popular apprehension.

L. L. Price

EARLY LIVERPOOL COTTON IMPORTS AND THE ORGANISATION OF THE COTTON MARKET IN THE EIGHTEENTH CENTURY

THE early history of the cotton trade of Liverpool is wrapped in some obscurity. The year 1758 has been generally accepted as the date of the first importation of cotton, on the authority of Sir James Picton, who recorded in his *Memorials of Liverpool* an isolated advertisement of November 3, 1758, offering for sale by auction twenty-five bags of Jamaica cotton.[1] An earlier advertisement than this, however, was brought to light by Thomas Ellison, who recounted almost gleefully, in his *Gleanings and Reminiscences*, the fact that he had been able to antedate "the hitherto-accepted earliest announcement" by some seventeen months.[2] Ellison was evidently convinced that there was no regular importation of cotton into Liverpool prior to 1757, but merely occasional receipts of "small quantities of the staple."

That there was a small but steady flow of cotton into the port by 1756 is evidenced in the early issues of Liverpool's first regular newspaper, which appeared in that year.[3] The first five numbers of the paper quote, under the heading "Prices of Goods at Market," Sugar, Cotton and Rum as well as Wheat, Barley and Oats. The first seven numbers show that between May 28th and July 9th, 1756, over 400 bags of cotton arrived, mainly from Jamaica, but including also four bags from North Carolina. Unfortunately in subsequent issues no statistics are given, but there are frequent references to the receipt of cotton. On this foundation it seems safe to assume that by 1756 the trade of Liverpool in cotton was of fair standing, and this is actually borne out by still earlier evidence.

In 1721 the Act was passed which prohibited the use of printed or dyed calico, even though the processes of printing or dyeing had been performed in this country. The prohibition did not extend to fustians, and printed fustians in consequence became important. The jealousy of the woollen manufacturers led them

[1] J. A. Picton, *Memorials of Liverpool* (1875), i. p. 207.

[2] T. Ellison, *Gleanings and Reminiscences* (1905), p. 1.

[3] *Williamson's Advertiser*, a weekly newspaper. The first number appeared 28th May, 1756.

in 1735 illegally to conduct propaganda against the wearing of these fustians and even to proceed against the wearers.[1] In the immediate outcry which followed many petitions were presented to Parliament for the interpretation of the Act. Among them was one from Liverpool merchants interested in the import of cotton, who petitioned " in behalf of themselves, and other the Merchants and Traders in the said Town of Liverpoole, and also in behalf of the Manufacturers of Fustian, and the Dealers therein, in the several Counties of Lancaster, Chester and Derby."[2] The nature of Liverpool's interest in the fustian trade was explained by the evidence of a Liverpool merchant, John Hardman, given on behalf of the Manchester petitioners.[3] The port profited considerably by the triangular trade between England, Guinea and the West Indies: woollen goods were exported to Guinea, slaves obtained in exchange, carried to the West Indies, and there bartered, together with miscellaneous merchandise, for colonial produce which was brought to this country. Among this produce emphasis is laid upon cotton " which is taken in last, and is One-fourth Part of the Loading of most of the Ships which come from thence, and is chiefly made use of in the Manufacture of Fustians." As much cotton was imported annually into Liverpool from the West Indies, according to Hardman's statement, as " when manufactured would amount to about the sum of £40,000," and he himself claimed to have sold each month for several years past 100 bags of cotton, of an average weight of 200 lb. per bag. The course of trade described by Hardman cannot have been of long duration, since the African trade was not thrown open until as late as 1730. Perhaps even in his time, in view of the success already attained by the Liverpool merchants in driving their Bristol rivals out of the West Indian trade, cotton was brought to Liverpool also by ships which traded directly with the West Indies and took no part in the African trade. In 1709 only 84 ships in all were owned at Liverpool,[4] while by 1752 they numbered 220, of which 106 were engaged in the West Indian and American trade.[5] By 1770 the total number of ships had risen to 309.[6]

[1] G. W. Daniels, *The Early English Cotton Industry*, pp. 20–23.

[2] *Journals of the House of Commons*, xxii. p. 592.

[3] *Ibid.*, pp. 566–567. John Hardman is described by Picton as having come to Liverpool from Rochdale. He was elected member for the borough in 1754, and died a few months after election. *Memorials of Liverpool*, i. p. 184.

[4] Enfield, *History of Leverpool* (1773), p. 67.

[5] *Liverpool Memorandum Book*, 1753.

[6] Enfield, *op. cit.*, p. 67.

It is possible only to guess at the extent of the Liverpool cotton import from the indications given in Hardman's evidence: probably it was not much more than 2,000 bags. In twenty-eight weeks of 1769 over 2,000 bags arrived, including more than 300 from Leghorn and Lisbon and 20 from North America.[1] No complete statistics are available until 1770, when 6,043 bags—more than one-quarter of the total importation of cotton into the country—were received.[2] The rate of increase in the import of cotton into the country between 1781 and 1791 was nearly 320 per cent., but Liverpool's rate of progress was even greater, so that it gradually drew away from its rivals, Glasgow, Whitehaven, Lancaster and Bristol, and approached nearer to London, up to that time the premier port for cotton. From 1790 to 1792 Liverpool easily outpaced London, then fell temporarily behind for two years, but held the lead steadily from 1795 onwards.[3] Liverpool's share in 1801 was 98,752 bales out of a total for the country of 260,485 bales.[4]

Just as in point of time the beginnings of the cotton trade in Liverpool have hitherto remained obscure, so also the accounts which exist of the early organisation of the market present aspects first of confusion and then of simplicity which are not supported by a more complete examination of the evidence, and are not in keeping with the logical, if slow, development which might be expected. It is difficult to recognise the existence of any uniformly prevailing custom in Ellison's account,[5] though he was undoubtedly led astray by thinking only in terms of a "trifling and intermittent" import. The growth of a specialisation in cotton-marketing is clearly traceable, although it is impossible in the eighteenth century to draw sharp lines of demarcation between the functions of the various participants. The general merchant and the general broker precede the cotton merchant; the cotton merchant and the cotton dealer appear

[1] These figures are compiled from the weekly returns given in the existing numbers of *Williamson's Advertiser.*

[2] Enfield, p. 78.

[3] Ellison, *The Cotton Trade of Great Britain* (1886), p. 170.

[4] J. A. Mann, *The Cotton Trade of Great Britain* (1860), Tables 16 and 27.

[5] *The Cotton Trade of Great Britain*, p. 165. "In the infancy of the trade . . . the cotton imported was for the most part sold to dealers, who retailed it to spinners. . . . Sometimes it was sold direct to the dealers by private treaty; at other times by auction, either by the importers themselves or by brokers in their employ. Sometimes the dealers themselves attended the auctions, and purchased direct; at other times they commissioned brokers to attend and buy on their account. Occasionally the importers sold direct to spinners, but instances of this kind were very rare. Occasionally, too, spinners purchased through brokers whom they commissioned to report on imports and offerings at auction; but only a small business was done in this way."

before the cotton broker. Only as the supply of cotton rose to meet the sharply rising demand could the cotton merchant and the cotton broker, as specialists, find a place in the system. Even then the merchant was sometimes also a manufacturer, and the broker often acted in the capacity of both importer and dealer.

Merchants of Hardman's type in the early days of the trade probably sold by private treaty to the fustian manufacturers. The arrivals of cotton into Liverpool at that time must have been often irregular, but Hardman's account of selling 100 bags per month rather suggests, if this is not reading too much into his words, that it was sold more or less continuously from his own warehouse, and presumably to a circle of regular customers. As the number of merchants increased, some of them having only a small share in these ventures, it would become the function of the general broker to effect sales of the miscellaneous produce coming into the port. It is noteworthy that after the issue of a regular newspaper in 1756 advertisements appear from time to time of auction sales of cotton, such announcements apparently being inserted by the broker conducting the sale. An examination of these announcements, however, as regards the amounts offered and the circumstances of the sale, leads to the conclusion that only a small portion of the cotton arriving was sold in this way. One may consider with good reason that auction sales were resorted to when damaged stocks were offered, or when for some reason a quick sale was desirable or necessary in the interests of the owner.[1] This view is strengthened by the fact that some of the importers of colonial produce had cotton and other goods on offer for private sale at their own warehouses, and advertised these in the papers without particular specification of quality or quantity.[2]

In 1766 there were 187 merchants in the town and not more than twelve general brokers.[3] The eighteenth-century broker was

[1] The following extracts are from advertisements in *Gore's Liverpool General Advertiser* (hereafter cited as *L.G.A.*) of 1784. 1st April: "To be peremptorily Sold by Public Auction . . . 44 bags Grenada Cotton . . . for the purpose of settling a dispute respecting the same"; 8th April: "20 bags Damaged Cotton"; 22nd April: "70 Bags and Pockets fine St. Domingo Cotton (Now landing out of the *Edwards* from Jamaica)"; 15th May: "18 Bags St. Domingo Cotton that came in damaged, but will be put in good order, A Parcel loose damaged Ditto, 19 Bags undamaged Ditto, being the Remainder of said Parcel"; 3rd June: "For the benefit of the Underwri ·rs . . . 111 Pockets St. Domingo Cotton . . . which received ship-damage, bu is now picked and put into good condition"; 10th June: "Quantity of damag l Spanish and St. Domingo Cotton."

[2] Such announcements appear almost w ·ekly after 1780.

[3] *Gore's Liverpool Directory*, 1766.

a useful go-between, whose chief duties were buying, selling and forwarding, but who could also effect insurance, collect outstanding debts, and even on occasion act as linguist and accountant.[1] The first trader to be described as a cotton merchant appears before 1770,[2] in this particular case as successor to a firm of cotton spinners, but since his name is not to be found among those of the importers of cotton in the newspaper lists, he should perhaps be more properly considered as a cotton dealer. A grocer, who was also a dealer in cotton, appears in the 'seventies, as well as a dealer in linen and cotton yarn who subsequently became a cotton merchant.[3] Thus by 1780 there were at least two dealers engaged in the buying and selling of cotton, but the general brokers sold a large part of the cotton imported, and one or two of their number who gradually acquired a special knowledge of the manufacturer's requirements were already beginning to act as agents on behalf of the Manchester buyers.[4] In the directory of 1790 four persons are definitely described as cotton brokers. Before enlarging on the significance of this development it is necessary to turn to another aspect of the cotton trade.

It is impossible adequately to appreciate Liverpool's part in the trade without some knowledge of the functions performed by the Manchester cotton market and of the relationship between the two centres. It is simplest to regard Liverpool with London, Bristol, Lancaster and Whitehaven as the wholesale markets which fed the big distributing centre at Manchester. All these wholesale markets were important throughout the eighteenth century: Liverpool became the permanently predominating market after 1795, but its proximity to Manchester, its inland navigations, its convenience for the West Indian and American trade, its progressive policy in the provision of dock and warehouse facilities, all counted steadily in its favour before the development of cotton-growing on a large scale in the United States finally established it in an unassailable position. The distribution of the raw material was an important part of Manchester's activity. Up to the close of the century there were very few spinners who bought in Liverpool: the buying was done by the Manchester merchants and dealers, many of whom bought from other ports as well as from Liverpool. Thus, in 1779, when a false rumour was current that Jamaica had been captured by the French, two Manchester dealers resolved to buy immediately

[1] Cf. *L.G.A.*, 10th June, 1790.

[2] *Gore's Directory*, 1769.

[3] *Ibid.*, 1774.

[4] H. Smithers, *Liverpool, Its Commerce, Statistics and Institutions* (1825), pp. 140–141.

in expectation of a rise in price. Some cotton was bought in London; one partner set off to Liverpool and bought there; an express was sent to Lancaster and another to Bristol. By these means 2,000 bags were secured. Unfortunately for the commercial success of the venture the rumour was soon contradicted, to the discomfiture of the enterprising dealers.[1] This was a special case, it is true, but at least it gives a clue to the methods by which the trade was carried on. At what date dealers appear in Manchester it is difficult to say, but it is certainly curious to find that by 1774, consequent upon an agitation against the dealers, a company had come into existence which "apparently existed for the purpose of buying cotton in large quantities, and then disposing of it to those who would sign an agreement to purchase from the company for six months."[2] The company had but a brief existence and disappeared in 1778. Ten years later there were as many as twenty-six cotton merchants and twenty cotton dealers in Manchester.[3] In 1804 there were more than sixty merchants and over forty dealers who traded in cotton, or cotton and twist.[4]

Moreover, the Manchester sphere of influence radiated through the ports to most of the sources of supply: connections were made abroad for the supply of the raw material, some English merchants owned cotton plantations abroad,[5] while, on the other hand, some of the American and West Indian growers had agents in the ports. In this latter connection a familiar passage of Robert Owen's Autobiography will be recalled which narrates how in 1790 or 1791 the first two bags of Sea Island cotton were consigned to Robert Spear (a prominent Manchester cotton dealer) by "the Liverpool agent of the American planter, with a request that he would apply to a competent spinner to try its quality and to give an opinion of its value."[6] The weekly lists of goods imported at Liverpool[7] during 1790, stating as they do the ports of origin and the names of the consignees, reveal some interesting facts. In the first place an examination of these shows that, in spite of the inevitable overlapping of both sets of traders, the distinction between the Manchester merchants and dealers was not one of name alone. Cotton was consigned with more or less regularity to Dauntesey, Hulme and Co., to J. Doxon and to A. Clegg,

[1] J. Slack, *Remarks on Cotton* (Liverpool, 1816), pp. 1 2.
[2] Daniels, *op. cit.*, p. 101 n.
[3] *Manchester Directory*, 1788. [4] *Ibid.*, 1804.
[5] Slack, *op. cit.*, p. 28; *L.G.A.*, 5th Dec., 1766; 5th Aug., 1790.
[6] *The Life of Robert Owen, by Himself* (Bohn's Ed., 1920), p. 45.
[7] Printed weekly by *L.G.A.*

and since these names do not occur in the Liverpool directories, but are found among those of the cotton merchants in the Manchester directory, there is at least a strong presumption that these consignees were actually the Manchester merchants of that name. During the year upwards of 2,000 bags, mostly taken on board at Lisbon or Bordeaux, arrived at Liverpool for those firms out of a total import of 30,000 bags.[1] As for the Manchester dealers, they for the most part did business in a small way, probably buying at the port enough cotton to satisfy the needs of their customers for a fortnight or so, and then returning for a fresh supply.[2]

The records of 1790 also show that the West Indian cotton was imported entirely by the general merchants, while the bulk of the cotton brought from the Mediterranean was consigned to those connected most intimately with the cotton trade. This can only be explained by the anxiety of the cotton importers to establish regular connections where cotton of good quality could be obtained, and by the fact that West Indian cargoes were of a miscellaneous character and the parcels of cotton but small, while, on the other hand, little was brought from Lisbon, Leghorn and Bordeaux[3] but cotton and fruit, individual shipments of cotton being relatively large. Again, among the importers of the latter were some of the so-called cotton brokers at Liverpool. The most important of them, the partnership of Holt and Davies, took over 4,000 bags, or nearly one-seventh of all the cotton which arrived during the year; to the second of them, George Marsden, came nearly 1,000 bags; but to the third, Tattersall, came only one or two parcels, and to the fourth, Waterhouse came none at all. Evidently then the functions of cotton-brokers were as yet ill-defined; but all had a claim to the title, because they acted as buyers or agents on behalf of clients in Manchester and elsewhere. This differentiated them from the general brokers, who, so far as cotton trading was concerned, acted as selling, and not as buying, agents. A buying broker was in existence as early as 1778, and was reputed to have bought during that year on behalf of J. T. and W. Edensor, the Manchester house of cotton merchants.[4] Furthermore the eighteenth-century brokers established a custom which was later to become of con-

[1] Approximate figures compiled from the weekly lists of goods imported.
[2] Slack, *op. cit.*, p. 20.
[3] "Brazilian cotton was forwarded from Brazil to Lisbon in Portuguese ships, the Spanish to Cadiz; the French to Bordeaux, Nantes and Havre." T. Baines, *History of the Commerce and Town of Liverpool* (1852), p. 754.
[4] Smithers, *op. cit.*, p. 141.

siderable importance, namely, the circulation of market information to their clients. A typical circular sent in 1796 by a cotton broker to a cotton merchant at Blackburn is printed in full by Ellison.[1]

At the close of the century the Liverpool market was in a state of transition. Instead of the division of the brokers into buying and selling sections, which is commonly regarded as the next stage of development, there came an increase in the number of dealers at Liverpool, while the number of the brokers was added to only slowly, so that by 1807 there was a total of twenty brokers and dealers, about equally divided between the two classes.[2] It is true that the evidence of the directories on this point is in some cases conflicting, but this is not surprising, since a clear recognition of the duties of the broker came but slowly. Even in 1816 brokers acted as importers and dealers, and Slack laid it down that "the duty, and only duty, of a broker is to be a middle-man between the buyer and seller, and not to buy and sell on his own account."[3] The dealer, as distinct from the broker, remained then the important link in the system of distributing the cotton. The minimum number of hands through which the cotton should pass on its way to the spinner was held to be four: namely, the grower, a middleman between the grower and the shipper, the importer and the dealer.[4] The increase in the number of dealers at Liverpool seems to indicate an increased amount of buying there on the part of the spinners. This presaged a degree of overlapping and resultant friction between the two markets, which only disappeared when later developments, notably the opening of the Manchester and Liverpool Railway, caused the elimination of the secondary market at Manchester.[5]

But for the great expansion in the volume of cotton imported in the last quarter of the century, there would have been small place in the market for the cotton broker. On the other hand, that expansion was due to the improvements in manufacturing methods and to the production of new varieties of cotton goods, and so upon the dealers, and in turn upon the brokers, was thrown a greater responsibility in the choice of cotton of requisite cleanliness, length of staple, strength and colour. At this stage of market development grading and sampling were almost impossible, so that cotton could generally be chosen only by careful inspection of the bulk. The range of cotton available was wider than

[1] Ellison, *op. cit.*, p. 179.
[2] *Gore's Directory*, 1807.
[3] Slack, *op. cit.*, p. 19.
[4] *Ibid.*, p. 28.
[5] S. J. Chapman, *The Lancashire Cotton Industry*, p. 114.

is generally realised. "In 1779, Cottons generally known then as fine cottons, were Cayenne, Surinam, Issequibo, Demerara and St. Domingo: the quality of the latter then being good staple and clean; the best of the other West Indies were Tobago, Guadaloupe, Grenada and Martinico, though many other kinds were then in use, but of a dirty description, such as Barbadoes, Tortola, St. Vincents, St. Kitts, Montserrat, Anguilla, Nevis and Antigua; the other cottons then known were from Turkey . . . such as Smyrna, Anatolia, Cyprus, Adonia, Dardanell, Salonica and Macedonia, the best of which were bought by the spinners of candle-wick; and many were used for weft cotton for heavy fustians, but none were used for twist, being of a feeble staple, though tolerably clean; the strongest staples were Cyprus and Dardanell, the latter the most dirty."[1] Cotton was brought from Brazil about 1781 by way of Lisbon, and in spite of its dirtiness was discovered to be a fibre of general utility, so that the demand for it grew rapidly. Surat and Bourbon, two extremes in point of quality, came on the market about the same time, in 1783; Bourbon was excellently suited to mule-spinning, and high prices, rising in 1786 even to 10*s.* per lb., were paid to obtain it. Cotton was not imported from the United States in any appreciable quantity until after 1795. The new cotton quickly found favour with the manufacturers, thanks to the efficiency of Whitney's gin; and the handsome profit which accrued to the growers stimulated them to a rapid extension of their plantations.[2]

Inevitably cotton dealing remained a highly speculative business throughout a period in which the flow of the raw material from the centres of its production was but slow and uncertain, and in which the state of the market was a matter of conjecture, and not of calculation. There could be no nice adjustment of supply and demand when so long an interval of time separated the grower and the importer, when crop reports could have served no purpose had they been known, and when it was impossible to forecast how slowly or how quickly an expected consignment would be absorbed. Moreover the fluctuations of price were exaggerated by the military and naval alarums and excursions of the time. Cotton rose 2*d.* per lb. when Grenada was captured by the French in September 1779,[3] and in October of the same year a rumour that Jamaica had been captured led to active buying, of which an example was given above. Speculation was rife in Liverpool in October 1791 on account of information having been received regarding an insurrection in St. Domingo. A sale

[1] Slack, *op. cit.*, p. 13. [2] *Ibid.*, pp. 23–24. [3] *Ibid.*, p. 1.

of Sea Island cotton was announced in London in 1801, but when news came of the peace with France the cotton was withdrawn, "as the holders expected the article to be much higher."[1] Nor did the behaviour of the dealers help to steady prices: rather the contrary was often the case. At Liverpool it was customary for brokers to report informally what transactions each had carried out. The custom, excellent as it was, seemingly fell into abuse, for the grave allegation was made by Slack that certain of them circulated false reports, "sometimes at a less than the current prices of the day, but more generally at a higher, which has led some unguarded people into speculations, by which they have become serious sufferers."[2] This abuse of their position by the brokers, if the allegation was justified, was ended by the more formal organisation of the market with its unwritten laws of conduct, but the general public on their side kept up for some time a speculative interest in cotton.[3]

In the last decade of the century, in view of Liverpool's growing claim to be regarded as the chief cotton market of the country. and in view of the new trades springing up in the district, it is perhaps natural to expect some attempt on the part of the seaport to share in the obvious prosperity of the manufacturing areas. It should be remembered that the period 1781–1791 saw an enormous development in the cotton industry, so that "there was not a village within thirty miles of Manchester, on the Cheshire and Derbyshire side, in which cotton manufacturing was not carried on,"[4] while the industry spread towards Liverpool until it reached the village of Prescot,[5] only seven miles away. There is something rather remarkable about the rapid rise and decline of a cotton industry in Liverpool, but the whole affair was so transient that this dramatic entry and exit have failed to call forth much comment from the historian. Perhaps it is worth while to recount what facts can be gathered.

There is evidence of some cotton spinning in Liverpool before 1770, for there was a cotton spinning partnership in the town, as well as a linen-draper who would seem to have bought cotton

[1] *Ibid.*, p. 15.
[2] *Ibid.*, p. 31.
[3] Smithers, *op. cit.*, p. 140.
[4] Chapman, *op. cit.*, p. 37.
[5] The cotton factory at Prescot was advertised for sale in 1795; its equipment then comprised "Twenty-three Weaving Looms, A Carding Engine. . . . One Ditto, Twelve Ditto, One Spinning Jenney, One Hundred and Twenty Spindles, One Ditto, Eight-four Ditto, One Roving Billy, One Cotton Picker, One Stove and Thirty Cotton Flakes. . . ." *L.G.A.*, 12th Feb., 1795. The industry had also spread to Ormskirk, where there was a factory for spinning and weaving; there were also made "Carding Engines, Spinning Jenneys, etc., 20 per cent. cheaper than elsewhere; Roving Engines, on the best construction ever made, to go by hand."—*L.G.A.*, 4th Nov., 1784.

yarn from domestic spinners.[1] Between 1770 and 1790 only a solitary cotton printer is mentioned in the directories, the former cotton spinners having become cotton merchants. In 1790 a sudden and lively interest was manifested in spinning. An advertisement of November 4th in that year offered premises suitable for cotton spinning and weaving "in and near Liverpool," and required a partner "to take an active part in a carding and spinning concern, now at work by horses, near Liverpool." [2] Within a short time there grew up a self-contained and, in view of the circumstances, extensive industry. At least four mills were erected between 1790 and 1791,[3] nor were they small ventures, but large and up-to-date erections, one being of six storeys in height.[4] There were in existence in 1796 two cotton-picking factories, six spinning mills, one check-weaving factory, and one other "cotton factory" whose trade was not specified. At the same time there were among the tradesmen who carried on subsidiary occupations in the town, a calico-printer and a "cotton-glazier," three cotton-machine makers, and one "cotton-machine and engine maker." [5] The failure of an industry apparently so thriving and complete must have occasioned no small surprise to those who were responsible for the enterprise, but an adequate discussion of the causes of its failure demands further investigation and is beyond our present purpose. Possibly the rapid collapse was due to an under-estimation of the need for acquired skill on the part of the operatives, to the difficulty of providing motive power, while these newly established concerns must have been severely shaken by the commercial crises of the period, which tested rigorously enough their older rivals in the manufacturing districts. It is a curious sidelight, however, on the attitude of the town towards the cotton manufacture to find that over 300 people were employed in the workhouse, in 1794, on the picking and spinning of cotton.[6] Here again the labour, as regards spinning at least, was ill-adapted to the work; it was reported that during 1794 no sales of spun cotton had taken place,[7] and certainly some local opinion was directed against the unsuitability of the work and the high cost of production.[8] The cotton factories had declined in number by 1804; [9] there were

[1] *Williamson's Advertiser*, 17th July, 1767. [2] *L.G.A.* 4th Nov., 1790.
[3] MS. note (p. 89) in the copy of Enfield's *History* annotated and enlarged by Matthew Gregson, the Liverpool antiquary (1749–1824).
[4] Picton, *op. cit.*, ii. p. 200. [5] *Gore's Directory*, 1796.
[6] *Liverpool Vestry Books*, 1681–1834, ed. H. Peet, i. p. 334.
[7] *Ibid.*, i. p. 328.
[8] MS. note (p. f) in Gregson's copy of Enfield.
[9] *Woodward's New Liverpool Directory*, 1804; *Gore's Directory*, 1805.

then four spinning mills, one weaving mill and one picking factory, while no reference can be found to the machine-makers, who had probably migrated elsewhere. Three years later one spinning factory and one weaving mill would appear to have been the only survivors.[1]

STANLEY DUMBELL

[1] *Gore's Directory*, 1807.

REVIEWS

Stabilisation, an economic policy for producers and consumers. By E. M. H. LLOYD. (London: Allen and Unwin. Pp. 128.)

THIS is a most capable and stimulating little book, of a value and suggestiveness out of proportion to its unpretentious appearance and modest length. The author's mind is socialistic in bias, in the sense that he is keenly alive to the wastes and disasters arising from the economic instability which in turn arises from unfettered individualism, and firmly convinced that mankind can and should take large and definite steps forward in acquiring collective control of economic forces. He is impressed, too, by the achievements of collective economic organisation in time of war; and if he does not always seem to attach full weight to the comparative simplicity of the end then sought or to the real cost incurred in attaining it, he disposes effectively of the fiction that all our post-war difficulties arose from the retention of Government control, and makes pointed criticism of the use made by private enterprise in 1919-20 of its emancipation.

His exposition of his remedial proposals falls sharply into two parts. In the first he restates, in admirably clear and telling fashion, the case for deliberately attempting to stabilise the general level of prices by means of a conscious manipulation of the machinery of money and credit. His attack on the policy of deflation, his figures—few but fit, his damaging quotations from banking bigwigs, his demonstration that the unconditional restoration of the gold standard means under present conditions that "our fate is apparently to be determined by the United States Federal Reserve Board"—all this is excellently done, and forms a most lucid and readable statement of the case for those—whether the Labour politicians for whom Mr. Lloyd seems primarily to be writing, or others—for whom the longer and more involved works of Cassel and Hawtrey sit heavily on the stomach. Mr. Lloyd gives 85 per cent. above pre-war as the level at which he would like to see prices stabilised, which seems as reasonable as any other: and holds that such stability is worth any one country pursuing at the cost of exchange instability, though he would greatly prefer an international scheme, embodying a universal gold exchange standard, on the basis of the Genoa resolutions.

He seems to admit more frankly than Mr. Hawtrey that such a scheme would involve the ultimate disappearance of gold as a standard of value, but to ignore like Mr. Hawtrey the added difficulty which the depreciation of gold during its progressive dethronement might cast in the path of stabilisation.

So far Mr. Lloyd's views, if not universally accepted even by economists, are in strict accordance with the lines on which an important body of "orthodox" economic thought has been rapidly travelling. Cassel and Hawtrey, Keynes and Fisher—here are mighty names to which he can appeal. The second part of his exposition, as he is aware, is likely to meet with a less cordial reception from the heirs of the "orthodox" tradition. It is one thing to attempt to stabilise the *general* price-level, quite another to attempt to stabilise the prices of individual commodities: yet that is what Mr. Lloyd proposes. That the play of the relative values of different things regulates production and consumption is what is on the whole the most satisfactory way, leaving the consumer as the ultimate dictator and guiding the producer to satisfy his wants—that even a Socialistic state would have to take over this mechanism of Value in order to make the most effective use of its limited resources—such are still the commonplaces even, and indeed not least, of those whom I will call General Stabilisers. To interfere with *this* mechanism may well seem to them dangerous, and to spell stagnation not stability. Yet here again Mr. Lloyd seems to me to make out a very strong case against undiluted *laissez-faire*. He is not unaware that secular changes in tastes and technique may lead to changes in relative values, however hard we may try to stabilise them. He is, I think, wrong in regarding this result as undesirable; but right in urging that it has small relevance to the problem of most urgent practical importance. That problem is to prevent fluctuations in individual prices from producing quite extravagant fluctuations in the output from year to year of staple commodities for which the demand is comparatively steady and should be tolerably easy to forecast (once general prices are stabilised) over, at any rate, a short series of years. Mr. Lloyd discourses of coal and oil, wheat and farm products, wool and cotton and rubber, and shows how in almost every case their post-war history is one of alternate shortage and superabundance, leading to alternate clamour from consumers and producers for the aid and protection of the State. To a large extent, as he points out, both parties—the producers with more effect—organise themselves to deal with the situation to their own advantage through pools and associations for

"orderly marketing" and for co-operative purchase: but the State, in his view, is the natural body to promote a continuous reconciliation of their conflicting interests, and to assist in coping with the physical difficulties of storage and grading, and with the financial difficulties of holding large stocks clear of the market for considerable periods of time. Mr. Lloyd is duly tentative and undogmatic about the forms which State intervention might take: he is careful to point out that it does not necessarily involve "nationalisation" in any ordinary sense, but rather such devices as State participation in marketing pools and trusts. He is careful to point out too that (as the British farmer has learnt to his cost) such attempts at Particular Stabilisation, if they are to be effective, must, unlike General Stabilisation, be international in scope. In the present state of the world this fact alone sets the second part of Mr. Lloyd's book further from the arena of practical politics than the first: but in it he has started a train of thought of high speculative interest, and one to which, in my judgment, economists and ultimately politicians will have to devote an increasing amount of attention in coming years.

D. H. ROBERTSON

Restoration of the World's Currencies. By R. A. LEHFELDT. (London: P. S. King and Son. 1923. Pp. xii + 146. 6*s*. net.)

IN monetary theory Professor Lehfeldt seems to me to be in some danger of falling between two stools. Accepting fashionable doctrine, he attributes the British slump of 1920–21 to a conversion of current account balances into deposit accounts and to diminished velocity of circulation rather than to the sudden closing down of the mine known as the Currency Note Account which had been very prolific for a few years, but as a South African he recognises that, at any rate when the currency is gold, its value will vary with its supply and demand. But however this may be, he has provided a useful compendium of the broad facts of the present situation, and adds reflections upon them which are reasonable and valuable if not strikingly novel. (Perhaps we should say "the recently past situation" when we notice that he speaks of marks being at 1000 to 2000 to £1, and remember that this note will not be published for several months.) He regards a return to gold standards—old or reduced—as the only practicable policy. Like all good South Africans, he would like to see gold coin to some extent, at any rate, in the hands of the

people, and so far as the immediate future (" at least a decade ") is concerned we need not fear that the value of gold will rise too high. For the more distant future he contemplates some international policy favourable to the output of gold when its value threatens to go up, and unfavourable when it threatens to fall. With some justice he suggests that this particular kind of " managed currency " is less likely to be mismanaged in the real or supposed interest of politicians than national paper currencies are.

EDWIN CANNAN

An Academic Study of Some Money Market and Other Statistics. By E. G. PEAKE, M.A., LL.B. (London: P. S. King & Son. 1923. Pp. 64.)

THIS book is an interesting attempt to test some of the theories of Political Economy by statistical records. The particular series of facts selected for examination are the interest rate in London for floating money, the discount rates on three and on six months Bank Bills, similar rates in Paris and in New York, and the London–Paris and London–New York exchange. The method employed can be illustrated by the following case: It is observed from the tables " that in years when the discount rate was more than usual, for the time of year, above the floating rate, the floating rate tended to rise more . . . than usual." On the basis of twenty-three years' records the coefficients of correlation are calculated between the difference between the floating and the six-months discount rates (x) and the average difference between the floating rate in the five months and the month in question (y). The coefficient is as high as ·774 when February is the starting month, as low as ·260 for July. Using this and the averages of x and of y, and we presume their standard deviations (which are not stated), it is computed that excess of ·1 in x will on the average be followed by an excess of ·06 in y. If y is forecasted by means of this relationship the average error resulting in twenty-three years is found to be ·46, while if a forecast had been based on average movements without the help of correlation, the greater average error ·70 would have resulted (pp. 12–14). It may be noticed that though the correlation in this case is high, the improvement in forecast is not great. In fact in many of the cases the correlation coefficients are too low to be of serious use in forecasting, and also they are liable to considerable error since they depend on twenty-three entries only.

Something can be learnt from the absence of correlation in some cases. Thus the French exchange has practically no significant correlation with either the London or the Paris discount rate. There is, however, a positive correlation for all the months between the rate of exchange and the *difference* between these rates, in the sense that the number of francs exchanged for £1 is the greater the more the excess of the London over the Paris rate. The author says that " this is unexpected." When the corresponding comparison is made with regard to London and New York, the correlation is negative in the first half and positive in the second half year.

It is, in fact, difficult to connect the correlations found with any theory, and the basis of the investigation is not wide enough and does not take into account sufficient considerations to show that political economists' abstractions are incorrect. On the whole it may be said that the book illustrates the great difficulty of finding in convenient form the kind of statistics by which the results of analysis can be tested. It has, however, a positive utility in bringing together in a convenient form the seasonal variations of discount and exchange rates; these should be useful to those who wish to follow their movements, and in this limited field some illustrations of economic theories can be found.

A. L. BOWLEY

The Capital Levy Explained. By HUGH DALTON, M.A., D.Sc. (Econ.). (London: The Labour Publishing Company. Pp. 1–96. 1*s*.)

ONE wonders if the proposal of a Capital Levy is to introduce a new era of pamphlet literature. Certainly almost all the writing about it has taken this form, though, as yet, it does not seem that any approach has been made to the point and simplicity of the great pamphleteers of the past. Is it that the art has been lost, like that of letter-writing? Dr. Dalton's *Capital Levy Explained* adds another to the list without contributing much that is new except in three cases, only one of which is economic. It is not uninteresting as a psychological study when a statement on the cover is compared with another on the last page of the text. In the former place the publisher states that the author " fought a constituency at the General Election," in the second the author himself says that " it is primarily as an economist that I have written this book." The reflection of the glow of

electoral energy and enthusiasm on the musings of the economist is worth observing. Dr. Dalton rather prides himself upon a historical comparison of the present time with the period after 1816. It is a comparison helped out with " intelligent anticipation." In it Ricardo is cited as a supporter of the principle of a Levy upon the basis of quotations from his *Principles* and the *Essay on the Funding System.* The second passage appears as follows : " To pay off the whole or a great portion of our debt is, in our estimation, a most desirable object. This cannot, or rather will not, be done by a Sinking Fund as at present constituted," etc. That, however, is not at all what Ricardo wrote. After the word " object " there is a comma followed by the condition, " if, at the same time, we acknowledged the evils of the funding system, and resolutely determined to carry on our future contests without having recourse to it." Unless there is a great change in public opinion, we are a very long way indeed from a nation " resolutely determined," if once free from debt, never to incur it again. And it was this idea of being permanently and for ever without debt which Ricardo had before his mind. The third point is put forward in the form of a bargain between the writer and those to be affected by the proposed Levy. " My own view," he writes, " is that, in return for conditional acceptance of the Levy by the business world, which is now mainly hostile, and for honest co-operation in carrying it out, it would be worth while for a Labour Government to offer in advance certain guarantees of early and specific reductions in taxation." An example of the suggested offer is that when by a Levy the interest of the debt had been reduced by 70 millions the standard rate of Income Tax would be reduced by 6*d*. This offer is doubly conditional, first as representing what, in the eventuality stated, the writer would recommend to the Labour Party, and secondly, if " the offer " is not accepted the anticipated savings may be dealt with at the discretion of the Government to be. Perhaps it is not altogether tactful to mention " guarantees " at present, but since the word is in the text, one wonders and is curious. Dr. Dalton is informing both to those who accept the Levy and those who do not—perhaps more to the latter—as to how a saving in expenditure through it (should one result) is to be dealt with. He has no less than five alternatives, so there should be something to please many people (pp. 41, 42). Then he is very candid in saying in effect that the earlier presentation of the scheme as " a heroic and entirely exceptional measure not to be repeated," cannot be sustained. In reply to the objection that there is no

guarantee that the Levy, if once made, would not be repeated, he says quite flatly and honestly, " there can, in the nature of the case, be no such guarantee " (p. 65).

W. R. SCOTT

Vom Staatsbankrott. By DR. CARL AUGUST FISCHER. (Karlsruhe i. B.: G. Braunsche Hofbuchdruckerei. 1922. Pp. x + 141. 2nd Edition.)

BY " state-bankruptcy," as the author of this interesting book points out, a very large number of possible devices may be meant, the general purpose being to relieve a debtor state from part or all of the liabilities which are pressing upon it. Such devices may vary from the partial or total repudiation of debt, or the compulsory reduction of interest upon loans, to the issue of inconvertible paper money. A terminological issue therefore arises: are all the measures which are called by the generic name rightly so called? It is clear that a state is not in the same position as an individual, for a state possesses a right to tax its subjects. If then a state chooses to impose differential taxation on, *e.g.*, War Loan holders, is it in effect declaring itself bankrupt or practising merely a particular tax-policy?

The issue as to what ought to be included under the concept of state bankruptcy is, of course, distinct from the issue: what are the economic consequences of those acts which are held to be bankruptcy? Here again it is necessary to distinguish the position of a state from that of an individual, for what the creditors of the state may lose, the taxpayers may gain. Hence the persistence, in the literature of Public Finance, of a tendency to defend state bankruptcies. A third line of inquiry is furnished by a discussion of the methods of alleviating the consequences of certain measures, such as inflation, whilst a fourth line concerns itself with the history of theories of state bankruptcy.

Dr. Fischer would like to see the word " state-bankruptcy " restricted to certain cases only: those cases in which a state does not meet its debts for a shorter or longer period, and where such nonfulfilment is due to inability and not merely to unwillingness to pay, as well as to those cases where acts equivalent to nonfulfilment are taken, which affect only the creditor of the state, or affect him to an especial degree. In all other cases Dr. Fischer prefers to use the phrase " Financial Revolution," which carries less misleading implications. But, whether we agree with him or not in thus fixing limits to the use of a particular

phrase, we must be grateful to him for a painstaking analysis of various classes of interference with the rights of creditors, and for a useful discussion of the history of theory on the subject, which, starting with Hume, Steuart and Hutcheson, carries the subject down to the writings of Adolf Wagner. His references to Ricardo, Say and other less well-known writers of the early nineteenth century—primarily the German economists who were largely influenced by the incidents of the Austrian bankruptcy of 1811—are most valuable, though Dr. Fischer's use of the long adjectival clause does not always commend itself to an English reader.

The author closes his book with a short study of the actual financial position of Germany. He is quite alive to the dangers of inflation, but, like the majority of German economists, he is rather too inclined to assume that the "restoration and stablisation of a currency thrown out of gear . . . require as a prior condition the 'activisation' [*Aktivierung*] of the balance of payments." How get an active trade balance? On these lines the problem is insoluble. Of course a German writer, thinking of actual German conditions, would reply, "By cutting down Reparations," an argument which our author repeats. But it is really time that the problems of Reparations and of Currency were treated apart. It does not in the least follow that because a foolish Reparations policy has forced the German Government to inflate (which is largely true) therefore a wise currency policy will force the German Government to pay anything the Allies care to ask for. On the contrary, if the possibility of paying Reparations out of speculative rates of currency disappear, the "taxable capacity" of Germany will be rather less than before, though general conditions in Germany will be vastly improved.

T. E. GREGORY

Le Bilan de L'Étatisme. Par ADOLPHE DELEMER. *Préface de* M. JACQUES BARDOUX. (Paris: Payot, 1922. Pp. xv + 285, 8vo.)

Effects of the War upon French Economic Life: A Collection of Five Monographs. Edited by CHARLES GIDE. (Oxford: Clarendon Press. Publications of the Carnegie Endowment for International Peace. 1923. Pp. 197, 8vo.)

THE French language has its fine shades, not always to be exactly matched on this side of the Channel. *Étatisme* has not yet been adopted into the Dictionary of the Academy and is not

precisely defined, but the word has come to stay. It is tinged with opprobrium, and is used to indicate dislike of State monopoly, nationalisation of industries, and complete State control—as distinct from mere regulation—of branches of trade and commerce. In an interesting preface Professor Bardoux commends the work of M. Delemer as exhibiting the patience of an archivist and the practical sense of a man of business. The task which M. Delemer has set himself is not to trace the history of *Étatisme* from its beginnings nor to examine it as a philosopher or an economist. He aspires to scrutinise the figures relative to the State management during the War of the mercantile marine, food supplies, railways, coal, petrol, and the metal trades. Applying rigorous accounting methods to such imperfect figures as exist, he finds State control guilty of great incompetence and extravagance, supplying striking proof of the superiority of freedom in business over Government trading, and of the loss which arises from replacing the man of affairs by the bureaucrat. He offers some acute observations upon the general aspects of the two methods of operation, but his study is in the main an attempt to audit the results of war-trading by the French Government. When his figures are complete he is careful and accurate and earns confidence in his conclusions. When he gives us only imperfect information we are inclined to suppose that he credits us with supplementary information which we do not possess, or that he is himself guided by a sound instinct through a sea of uncertainties. Sometimes the figures are altogether lacking, and this is one of the most formidable counts in his indictment.

M. Delemer emphasises the fact that commercial book-keeping (by double entry) and careful computation of costs per unit are indispensable in private business, but are dispensed with in public accounting, which confines itself to figures of credits granted, amounts expended and amounts received. The large figures of profit or loss in the Government reports take no account of overhead charges, interest on capital and sinking funds. They prove apart from this that the State charged too much or too little for its services and commodities and that the result has been concealed taxation or concealed subsidies. He admits that in the abnormal circumstances of war Government may be well advised and even compelled to monopolise certain imports and to ration some necessary commodities and fix their price, but he concludes that its intervention should end as soon and as completely as possible. So long as it lasts careful accounting checks should be operative. In private life serious blunders come to an end

when the guilty party is stricken bankrupt or ignominiously dismissed, but when the State is working in the dark the taxpayer pays, the bungler is not exposed, and is often honoured for important services to the public whose interests he has injured.

Even, however, if good accounts are kept M. Delemer sees in bureaucracy the " inherent defects " which are commonly charged, but not always proved, against it. He does not perhaps make sufficient allowance for the fact that when the nation is in arms the abnormal demand for Civil officials synchronises with a serious limitation of choice. The soldiers are still talking of the military follies and the sailors of the naval mistakes committed during the war. Civilian blunders are more readily perceived by the general public. In America, in England, and in France, people are almost tired of discussing them, and it may be doubted whether mistakes equally serious would be avoided in similar circumstances. But it is all to the good that analysis of this kind should tear the veil from failures which have been masquerading as successful demonstrations of the gains which result even from temporary State trading.

The volume which purports to tell us the effects of the war upon French economic life is singularly disappointing. Five short monographs are brought together, dealing with the Mercantile Marine (M. Mazel), Textile Industry (Professor Aftalion), Finance (Professor Nogaro), Commercial Policy (Professor Aftalion), and Labour (Professor Oualid). They are for the most part a presentation of statistics for the years 1914–1918 with a commentary which goes little beyond a paraphrase of the official figures. We would give the whole of them for half a dozen luminous pages by their distinguished editor, who does not speak in this collection. Apart from the essay by Professor Oualid, which is the most informing of the five, the monographs fail to live up to the title of the volume. The authors seem to view with general complacent approval the official economic policy during the war—a policy of which some of them appear to have been the instruments. The usual sources of reference have already told us how much money was raised and how much expended, how many ships were employed, how many tons of merchandise were cleared, etc., but this is a long way from enlightening us upon the effects of the war upon the economic life of France. The statistical side of the account predominates, and even this is not very well handled. Professor Aftalion, dealing with imports and exports, gives us only their values in francs, observing that he prefers values to quantities. He might

surely have given us both, or we might have been provided somewhere with a table of the fluctuations in exchange during the period covered. If the authors have been bound down by the conditions of their task we can only sympathise with them upon what they must have found an uninspiring portion of an inspiring subject.

HENRY HIGGS

The Result of Government Ownership in South Africa. By M. H. DE KOCK, M.A., Ph.D. (Cape Town: Juta. Pp. 187. Price 10*s*. 6*d*.)

GOVERNMENT ownership in South Africa extends over the railways and harbours, ports, telegraphs and telephones, and also over land banks, forests and other domains, irrigation undertakings and other miscellaneous matters. Dr. de Kock regards "the present extent of Government ownership [in South Africa] as a necessary evil." The Post Office "is not conducted in accordance with business principles." In the Irrigation Department "extravagance and maladministration prevailed." But against much the most important branch of Government activity, the railway management, the author brings no such charge, nor do his facts and figures show that it would be justified. May not the reason be, though it is not suggested by him, that whereas the railway administration is a distinct organisation, under expert professional management, with a separate budget of its own and a business-like balance sheet, the other undertakings have no such independence, but mix up their capital and revenue receipts and expenditure in the ordinary budget of the country in the same way as happens to our own Post Office accounts at home?

"The Union statistics do not," Dr. de Kock says, "show the earnings per ton per mile from the freight service." They did, in fact, give this information up to 1913. During the war it was suppressed, ostensibly on the ground of economy. It has not been republished since: can it be lest the South African traders should learn how much their rates have been advanced? The ostrich is a native of the country.

W. M. ACWORTH

The Control of Industry. By D. H. ROBERTSON. (Cambridge Economic Handbooks. London: Nisbet & Co. Ltd., and Cambridge: University Press. Pp. x + 169.)

ANY work on the control of industry which is competently written is likely to be widely read, for interest in the subject, if

not universal, is at least more intense, more intelligent, and more widely distributed than is usual with economic problems. The Cambridge handbooks are, we suppose, primarily intended for the student, but it is not only the student who will turn hopefully to Mr. Robertson's book. The "business man," for example, vaguely conscious that a public opinion to which he is in some degree sensitive has arraigned him at its bar, may try to discover herein what it is that he is supposed to have done and why he is supposed to have done it. The intelligent wage-earner may endeavour, in the light of what Mr. Robertson tells him, to turn that passionate sense of social injustice, which his circumstances have often developed in him, to some constructive purpose. The whole problem of industrial control is the meeting-ground of widely differing faiths and theories of life, and this latest attempt to throw light upon its real character should be serviceable to them all.

Mr. Robertson has had, however, to contend with considerable difficulties, for limitations of space have necessitated the severest compression. He is a good judge of perspective and, assuming that the ground he has covered had to be covered, we do not think that it could have been better done. He has contrived, within the exiguous limits imposed upon him, to explain the scope and implications of large-scale industry, to show how such industry is financed, to discuss the characteristics of capitalistic organisation, and so to prepare the way for an examination and criticism of the more obvious proposals for joint industrial control. But it is very doubtful whether, within the limits assigned, as much as this ought to have been attempted. The phrase "control of industry" is ambiguous. It may refer to the whole of that economic setting within which industry functions, and which is actuated not only by the expression consciously given to individual and social purpose, but also by those greater and blinder forces which we used to call economic laws. But it may also refer to those specific tendencies, largely political and ethical in character, which aim at bringing to bear a greater measure of conscious control within the industrial sphere. It is industrial control in this latter sense which most people have in mind when they make use of the phrase. But Mr. Robertson, as we have indicated, has covered the whole field. His aim has been, presumably, to bring the book into line with his own *Money* and with Mr. Henderson's *Supply and Demand*. He has therefore felt it necessary to give us "a picture of Man, eager to enjoy and to beget, lodged precariously on the surface of a finite planet,

and arguing distractedly with blind forces the eternal question of his daily bread." He would claim, no doubt, that the framework erected in his first seven chapters is essential to an understanding of the social and political problems which industrial control involves. And this, perhaps, is true. But the result is that there is a suggestion of breathless haste about the development of the argument which its style, lucid and balanced as it is, does not altogether obviate. The problems of conscious control, and its various possibilities of corporate action—those problems, in fact, which arouse the greatest practical interest—are sketched, skilfully indeed, but with all too slight a touch, in the space of sixty pages. The book may not, in consequence, receive the attention it deserves, for those who would perhaps profit most from an understanding of the general principles it formulates will be left wondering, at the finish, exactly where and how these same principles apply. The "philosophy of industrial relations" hinted at in Chap. XI is, from their point of view, the starting point of the inquiry, rather than its conclusion. In short, the needs of the situation would have been more adequately met had the problem of control in its narrower sense been reserved for separate treatment. Mr. Robertson, one feels, is admirable as far as he goes; but what a long way off he is at the start and how very fast he travels.

Two further points deserve mention. Firstly, Mr. Robertson has done a real service in emphasising, as he does throughout, that there is no such thing as a "capitalist system," and that what its critics, by sheer force of suggestion, have erected into one, is nothing more substantial than systematised chaos. Nothing could be more foolish than that reasoned defence of "the existing system of industry" which well-meaning opponents of social experiment have, in all good faith—and in all ignorance from time to time undertaken. If only there were a system, how simple—comparatively speaking industrial reconstruction would be! Secondly, we are not quite happy about "Capitalism's Golden Rule"—that "where the risk lies, there the control lies also." It has always seemed to us that this implies an objective evaluation of "risk" which has little meaning when applied to a society of human beings (as Mr. Robertson appears indeed to recognise), and that the risks which the wage-earner runs are, having regard to their social consequences, out of all proportion to his share in industrial control. Is this really "another story" (p. 94) or is it not rather a consideration which goes to the root of the whole question at issue?

We are learning to look for temperateness of judgment, clarity of expression, and felicity of illustration in whatever Mr. Robertson writes, and we are not disappointed here. His captions (is that the right word?) are happily chosen. How far more convincing (if only because less likely to be taken literally) are the White Knight and the Dodo than the heathen (still with us) who, in his blindness, bows down to bananas and nuts. Some day perhaps Mr. Robertson will give us that elementary textbook (in which he will neither bludgeon the beginner nor bewilder him) which we have so far sought in vain.

And yet the "Control of Industry" will not, we think, wholly satisfy its readers. And the explanation is probably to be found in that very detachment of outlook which is in its way so admirable. Mr. Robertson, in his statement of the problem, has avoided the smug "meliorism" which vitiates so much that is written concerning industrial relations; but he has not altogether escaped its accompanying manner. He dissects society so blandly that he never seems, somehow, to be even decently impatient with it. The darker human passions—

"Horror and scorn and hate and fear and indignation"

—would appear to lie outside his purview. And this is not an unmixed advantage. His easy dispassionateness will add to the value of the book as a classroom instrument, of course; but perhaps in the workshops and the market-place—where we should like it to be read and discussed—they will feel that Mr. Robertson is getting at them. H. PHILLIPS

Volkswirtschaftslehre. By EUGEN SCHWIEDLAND. Vol. I. *Eigenart und Grundlagen des wirtschaftlichen Lebens.* Vol. II. *Die Gebiete der wirtschaftlichen Tätigkeit.* (Stuttgart: W. Kohlhammer. Vol. I. Pp. 460; Vol. II. Pp. 217.)

IT would seem that, as in Germany so in Austria, there is a growing demand for information on economic problems. It is therefore by no means surprising that Dr. Schwiedland's lectures, forty-three in number, on the Principles of Economics, should have found large audiences at the Vienna University and the Technical High School, and that the two volumes already published of the three that have been planned have run into three editions. Dr. Schwiedland has written a readable and interesting book, strong on the descriptive side of the subject. His scheme of presenting economic truths is reminiscent of

Schmoller's great work. But this must by no means be taken to imply that Dr. Schwiedland has not struck out a line of his own. Indeed he has. He has attempted to put into these two volumes a conception of economics which the experiences of the war have evolved in his mind. It is characterised by a strongly-marked ethical tone, and by the suggestion, reiterated with vigour throughout the work, that economic activities are conditioned by psychological influence. Indeed Dr. Schwiedland may be said to have provided a work on economic psychology, or, if the term be preferred, on the psychology of economics. As Dr. Schwiedland himself says, not goods, wealth, and transport facilities, but human capacities and relationships are the main problems of economic theory. From this point of view it is only to be expected that the author would have a good deal to say on the economic interdependence of the world, and it must be admitted that his consideration of the problem of the world to-day as an economic unit is distinctly interesting.

Equally interesting is his consideration of what is termed the capitalist system. In this particular section he has thrown much light on the influence of psychology on economic activities. For example, he traces the growth of acquisitiveness, the strength of which he fully realises and demonstrates. So strong does he regard this force to be that he does not shrink from declaring that "selfishness deeply ingrained in the human heart has for over two thousand years mocked Christian teaching." He is particularly illuminating in his consideration of the problem of the chase after profits, which, he says, has become the meteyard of all economic activities. So much so is this the case in his opinion that he declares that economic activities no longer minister to life, but that there is a marked tendency in the present era for life to be sacrificed to economic activities. In a measure Dr. Schwiedland regards this as retrogression and a *harking back to a primitive social state.*

But he is not blind to the achievements of Capitalism. He declares roundly that to abolish Capitalism is an impossibility. In this connection he examines the claims of Socialism, and here and there, probably with an eye on Bolshevism, is a little hard on Socialist ideas. Yet his evaluation as a whole is balanced. Just as he sees the strength of Capitalism, so also he realises the excellences of Socialism. This judiciousness marks every section of the two volumes. The first is concerned with general questions, with what may be termed fundamentals; the second with agriculture and industry, commerce and insurance, banking

and transport. Throughout he quotes, in smaller type, the opinions of economic and other authorities, and it is helpful here and there to have an apt quotation from Goethe and Rathenau, as well as from Weber, Carver or Bücher.

For those who read German easily the book may be warmly recommended as a bright and interesting presentation of economic theory by a writer who certainly has ideas.

M. EPSTEIN

The Economics of Unemployment. By J. A. HOBSON. (London: George Allen & Unwin, Ltd., 1922. Pp. 157. Price 4*s.* 6*d.* net.)

THIS book is a re-statement, in the light of the conditions of the present day, of the theory that over-saving is the primary and fundamental cause of unemployment. With this theory the author's name is specially associated, and in this book he develops a detailed theoretical argument in support of it. He claims that cyclical depressions in industry, seasonal fluctuations and similar causes are at most of secondary importance. They may and do aggravate the evil, but the prime cause lies rather in the present distribution of wealth and its effects on saving. The wealthy section of the community obtains a larger share of the product than it is in a condition to consume; the surplus, therefore, is invested in increasing the means of production; these means are consequently increased beyond the capacity of the market to consume the product; and, finally, unemployment results until the surplus stocks have been absorbed, and industry gradually recovers its full activity. Then the whole process begins over again. The remedy, it is argued, is to be found in increasing the share of the mass of the workers in industry, and so enabling consumption to keep pace with production. There is a balance, it is urged, between saving and consumption, and if one or other is in excess, and under present conditions, in the author's view, it is the former, economic development will be upset, and unemployment will result. "Excessive spending (as in the war) encroaches on saved capital, and impairs future productivity. Excessive saving operates, through deficient demand for commodities, to slacken the sinews of production and produce more capital goods than will be able to be put to full productive use."

The principles of the author are expressed with clearness and vigour and argued with ability. The importance of the relation

between saving and consumption as affecting unemployment is well brought out, and the case for treating over-saving as a cause of unemployment is, in many ways, strong. Indeed, in some respects the author and the supporters of the "cyclical theory" reach a similar goal by separate routes. Both argue a temporary excess of the instruments of production, that is, of the results of saving, which he attributes to actual over-saving, and they to miscalculations of demand.

The book is also valuable in emphasising certain points which do not always receive sufficient attention, such as the value of a strong working-class demand. In certain quarters there is a tendency to make a cut in wages the first—if not the only—means of meeting a fall in prices. The author rightly emphasises the importance of relying, as far as possible, on improved organisation. "A business made profitable by low wages makes no real progress in productivity, whereas profits secured as the result of improved methods of production involve an increase of wealth and of attendant welfare." Again, a most suggestive opening chapter on "A Limited Market" brings out the tendencies that exist, on the employers' side, to a limitation of output, and might well be pondered by the numerous critics (wise and otherwise) of the Trade Unions. It is too little recognised that the criticism of trade restrictions is apt to be one-sided; and that it would lead to removing restrictions on the workman's output, whilst leaving in being restrictions on his employment. With this chapter may be considered a suggestive appendix on Protection and the Limited Market.

On the other hand, the author appears to claim for his principles more than the facts seem to warrant. There is much to be said for classing over-saving among the causes of unemployment. It is a very different thing to regard it, as he appears to do, as the sole fundamental (as distinct from temporary) cause, nor does he appear to support his views by adequate facts in relation to this wider claim. It is in this respect that his treatment is least adequate, and it is at times strongly reminiscent of the abstract reasonings of some writers of the Classical School. The arguments of the supporters of the "cyclical theory" are rejected, but the book rather lacks that very careful analysis of detailed facts that is found, for instance, in Beveridge's *Unemployment*. Nor does it appear to meet the evidence brought out by the latter, that, except perhaps between 1900 and 1910, the normal result of each cycle has been to leave working-class standards higher than it found them.

Again, whilst the author indicates the possibilities (and dangers) of under-saving, it is by no means clear that his proposals would in practice avoid them. He also appears to identify the employing and interest-receiving classes with the wealthy classes. Indeed his proposals depend largely for their validity on this assumption, and the existence of a large and by no means wealthy middle class would render their adoption liable to cause much undeserved suffering, and would reduce consumption in one direction by at least a large part of any increase that was secured in others. Moreover, the restriction of the returns to enterprise and risk hardly appears quite consistent with the demand for the maximum improvements, since it must inevitably reduce, if not entirely remove, the incentive to carry them out.

Nevertheless, whatever may be said by way of criticism, the book is a most interesting and suggestive one, and the theory which it produces deserves careful consideration. The writer also shows a grip of the difficulties of the working-class households, and his demonstration of the reasons for the present smallness of their savings (pp. 45 *seq.*) is excellent.

N. B. DEARLE

The Third Winter of Unemployment: the Results of a Study of the Unemployment Problem undertaken in August and September 1922. By Major the Hon. J. J. ASTOR, M.P., Professor A. L. BOWLEY, Professor HENRY CLAY, ROBERT GRANT, W. T. LAYTON, P. J. PYBUS, B. SEEBOHM ROWNTREE, Lt.-Colonel GEORGE SCHUSTER, F. D. STUART. (London: P. S. King & Son, Ltd., 1922. Pp. viii + 350. Price 6*s.* net.)

THIS admirable book quickly emphasises the evidence of progress towards an agreed policy and agreed principles in dealing with unemployment. The description of the measures taken to mitigate the present depression show this agreement in the sphere of practice. For the provision so made by general consent is far larger than it has ever been before. Less immediately urgent, but of greater ultimate importance, is the question of general principles. The authors disclaim "any attempt at this stage to formulate a policy." Yet the general conclusions of the book show a measure of unity of aims and ideas that is remarkable in view of the wide range of opinion that they cover. The result is to suggest that an agreed policy on unemployment is approaching within the range of practical politics—at least among thinking men of all parties.

The book is based on detailed inquiries in nine specially selected localities by seven highly competent investigators. These districts, include Woolwich, six provincial cities, Glasgow and an industrial and mining district in South Wales, and appear fully to represent the chief features of industrial Britain. The Local Reports, based on these inquiries, form the second part of the book and occupy about two-thirds of it. The authors' general survey, in the first part of the volume, is based on them all, and summarises their common features. The inquiries, allowing for local peculiarities, show a remarkable agreement. As the authors say: "the large measure of agreement which they present is quite spontaneous and must be attributed to similarity in the local conditions." It is certainly noteworthy that seven separate persons of strong individuality should have come independently to such similar conclusions.

The general survey made by the authors commences with a summary of the situation and an estimate of the total amount of unemployment and short time, proceeds to describe and criticise the various provisions made for relief, produces an estimate of the cost, and then considers the effects of the depression. Their intention to refrain from suggesting a policy does not prevent them from taking a definite line on matters of importance, and they conclude with a chapter of "tentative" suggestions. Their attitude is essentially constructive, their criticisms bold and decided; and their principles are sometimes of a far-reaching character.

For the attempt to estimate the total amount of unemployment the extension of unemployment insurance to all workers, with certain exceptions, affords more ample material than in the past. The estimate is rendered more valuable by the inclusion of short time, and the attempt to express it in terms of workers on full time. The limits to the existing figures and the allowances to be made are well brought out.

Emphasis is justly laid on the two main influences that are at work. Partly the normal cyclical movement is in operation, intensified probably by the fact that the war stopped and held back for some years the depression that was developing in the early part of 1914. Secondly, the war gave an "abnormal twist" to industry, bringing very large numbers into some trades, notably metals, shipbuilding and chemicals, and checking or stopping the development of others. The position in the former "is thus, that whereas they have absorbed practically the whole increase in the population, they are at present giving

employment only to the pre-war numbers." Moreover, such a "twist" appears to be more widely extended than the authors suggest. Thus in the building industry, where numbers have declined, there has been a change in the proportions employed by different branches. Some, like bricklayers and stonemasons, have fallen heavily, and others moderately, whilst a few show a small increase. During the height of the depression this has had no very marked effect; but at an earlier stage a low percentage in some branches was accompanied by a much higher one in others. In this case the "twist" may not be directly due to the war, but it none the less extends the area of the problem and may again become serious with a revival of trade.

The conclusion of the authors in regard to the results of unemployment are in some ways hopeful. At the time of the inquiry, though "there is much real suffering affecting classes that were less affected in pre-war days," an unexampled prevalence of unemployment had produced less actual distress than previous depressions of less extent and duration. This is attributed partly to far more adequate public provision, and partly to the increased resources of the workpeople as a result of the prosperity of the war years. But the authors point out that with the continuance of the depression these resources are likely to become exhausted and the distress to become more serious. The same applies to questions of demoralisation. So far there was little evidence of active physical deterioration, though there is considerable mental strain, or, with certain definite exceptions, of an increasing desire to live on public assistance without work. Indeed, the real danger is the loss of regular occupation, and the effect of constant failure to secure work after persistent effort.

On the subject of maintenance the conclusion is wise and courageous. "Maintenance without work, however demoralising it may be in the long run, is at any rate less demoralising than unemployment without maintenance." And it is well that this should have been said, in view of the campaign against the so-called "dole"; and particularly that it should have been said by a group who represent what is best in all parties. At the close of the survey the authors develop a number of admirable suggestions for dealing with various problems, and in particular with "the overlapping, inconsistencies and anomalies" of existing policy and practice. Finally, the statement in the preface that "no attempt is made *at this stage* to formulate a policy," raises the hope that the authors will do this in a second

volume. They have accomplished so much already, that their readers, like Oliver Twist, will rightly ask for more.

N. B. DEARLE

Insurance by Industry Examined. By JOSEPH L. COHEN, M.A., F.S.S. (London: P. S. King & Son. 1923.)

THIS is a supplement to the author's book on Insurance against Unemployment, published in 1922, and is an inquiry into the recent working of the British scheme of Unemployment Insurance, and an examination of the proposals which have been suggested to take its place. The Act of 1911 provided for an experimental and partial insurance, which was to begin its beneficial working in January 1913. Its history reminds one of that of Joseph in Egypt. The War began in 1914, and reduced unemployment to a minimum. The fund from contributions became larger and larger. When the War came to an end, claims for unemployment became more and more pressing, exhausting the reserves in the fund. If in either case the sequel of events had been reversed, the consequences would have been serious. The early years of prosperity were taken to prove the success of the experiment, and accordingly it was extended to industrial occupations generally. At the same time the benefits were increased, but not to a sufficient extent to keep pace with the increase in the cost of living. Four Acts passed in the year 1921 endeavoured by increase of contributions and otherwise to meet the unforeseen difficulty caused by the great number of unemployed persons and the urgency of their claims.

The administration of the scheme has been subject to much criticism. It has been alleged that it is costly, bureaucratic, unjust, improvident and demoralising. Mr. Cohen examines these allegations in detail, and arrives at a conclusion favourable to the present system. His main point is that these defects are mostly inherent in the system of Unemployment Insurance, and would appear under any form of administration. It may be so, but hardly to the same extent. The main error of the existing scheme is that it is based, like the national sickness insurance, on the unsound principle of the "flat rate." No insurance can be sound which does not at the outset ascertain what are the probable risks to be insured against, and frame scales of contribution equivalent to those risks, and graduated as those risks vary. For some industries the risk of unemployment is negligible; for others it is heavy. It is obviously unjust to charge the same premium to both classes. The injustice is covered or concealed

by the arrangement that the workman only pays a small portion of that premium directly, the remainder being paid by his employer or by the community at large. The employer's payment will sooner or later affect the remuneration of the workman, for there is no other fund out of which in the long run it can be met. Under the plan of insurance by industry, each industry should fix its own contribution according to the risks to which its members are exposed.

What that contribution should be for so varying and uncertain a risk as unemployment, so complicated in its causes and effects, is a problem of great difficulty; and Mr. Cohen examines this and other questions that have been raised with respect to it, and sums up against the proposal. He states that "there is widespread discontent with the law as it is to-day," and suggests the necessity of further inquiry as to the possibility of improved means of dealing with social insurance in all its branches.

E. BRABROOK

Workshop Organisation. By G. D. H. COLE. (Oxford: Clarendon Press, 1923. Published on behalf of the Carnegie Endowment for International Peace. Pp. xiv + 186. 7*s*. 6*d*. net.)

THE movement which originated in February 1915, in the workshops of the Clyde, for a time, as will be remembered, bulked large in the popular imagination; to readers of the "patriotic" press it stood for the impact of alien and defeatist propaganda upon "sound" trade-unionism; to its sympathisers it appeared to be the first faint stirring of a new form of industrial life. In fact, it was the outcome—inevitable, given the circumstances of the war—of a long-smouldering discontent with industrial conditions in the engineering and kindred trades. Its achievements were interesting and significant, but they were built upon sand, and the incoming tide of industrial depression has largely swept them away. It is good, then, to know that we have in Mr. Cole's monograph a careful and well-documented account of the origins and aims of the movement.

When war broke out, the germ of the Shop Stewards' movement was already in being. In the engineering industry the problem of payment by results—in some respects the crux of the whole industrial situation—had long been acute. It had virtually been left to each engineering workshop to determine its own salvation, and a strong tendency towards shop organisation had naturally resulted. It is this tendency, and its subsequent

development as a "spontaneous" and "rank and file" movement, of which Mr. Cole writes. The shortage of skilled men in the munitions industries, the restriction of the official activities of the craft unions, in conformity with war-time agreement, and the impetus which war-time circumstances gave to the political doctrines of the Syndicalists and the Marxians, afforded it its opportunity, and led to that hectic activity of unofficial committees, and to those insistent demands for "workers' control" which characterise the closing years of the war. Under the influence of the Bolshevik revolution, which provided the supporters of "workers' control" with both an example and a grievance, the movement became more markedly political; with the cessation of hostilities its industrial importance disappears and it loses itself in the byways of British communism.

But it has left its mark upon industrial organisation, not only in the agreement of 1919, with which the narrative portion of the monograph concludes, and which represents, in Mr. Cole's judgment, a "big advance on the pre-war position," but in the unsolved problems of trade-union structure which it called into being, and in the stimulus it gave to a number of officially inspired experiments in industrial control. Still more perhaps has it left its mark upon industrial politics. The alleged analogy between "political" and "industrial" democracy—however absurd its critics may conceive it to be—will ultimately become a living political issue, and the first exchanges in the campaign will have been those which took place on the Clyde in the early days of the war.

Mr. Cole has done his work well. His most important source of information, he tells us, has been his "actual memory of affairs." We cannot check the use he has made of it, but he has written with studied moderation, and has kept his personal estimates "well in the background." He has probably done wisely in detaching the industrial movement of which he writes—so far as it is possible to detach it—from its highly coloured background of political intrigue. We wish he had told us a little more definitely what the actual position in the workshops is at the present day; it can hardly be gauged, we should imagine, in terms of any paper constitution.

The book contains some useful appendices (of which the most interesting embody the proposals of 1917 for "Collective Contract"), while the whole production represents yet another typographical triumph for the Shop Stewards of the Clarendon Press.

H. PHILLIPS

Capital's Duty to the Wage-Earner: a Manual of Principles and Practice on handling the Human Factors in Industry. By JOHN CALDER, Consulting Engineer. (Longmans: New York and London, 1923. Pp. xii + 326. Price 10*s.* 6*d.* net.)

MR. CALDER is editor of *Modern Production Methods* and author of *Prevention of Factory Accidents*, etc. On the strength of "a continuous experience in industry extending over nearly forty years" he "appeals to the able organisers of our present material prosperity, to the financial supporters of industry, and to the employers of the United States, their executives of every rank, and those fitting themselves for management and social service to glimpse a worthier capitalism and to substitute statesmanship for skilful opportunism, economic strategy, and militancy." A firm believer in the virtues of an industrial and social system based on individualism, he has yet moved a long way from the comfortable belief in the realisation of the common good by the clash of men moved by self-interest. One might hesitate to declare him an adherent to the doctrine that industry should be conducted as a social service, a doctrine by no means necessarily inconsistent with capitalism, though doubtless if realised it would destroy many forms of exploitation. He believes that the interests of employer and employee can be reconciled, and that both parties can establish a harmony without the intervention of the State. His theme is the contribution which Capital must make towards this reconciliation.

The book reveals the wide differences that exist between the industrial worlds of America and Britain, although they are built up on the same individualist foundation. Much of it will strike the reader on this side the Atlantic with a sense that he is hearing of "old, unhappy, far-off things" which we lived through long ago, and much of what is addressed to the American employer will seem to his British brother but little suited to help him in his problems. The British employer has to find a means of reconciling managerial functions with the claims for improved status raised by a nation-wide trade-unionism, long accustomed to collective bargaining and, though there are regrettable lapses, conducting its fights fairly and with respect for agreements. In America trade-unionism is weak in relation to the whole body of workers, many of its leaders, to put it mildly, do not command the respect of the public, and it would not be seriously untrue to say that the body of employers, as a whole, is in its attitude towards the workers back where our

employers were a hundred years ago. Nevertheless, there are some points of contact in the problems.

On the managerial side perhaps the foreman is the most important official in the eyes of the worker; certainly in his hands lie the welfare of the employee and the chances of industrial war or peace. The occupants of this "key position," says Mr. Calder, "so far as being selected for executive ability is concerned, frequently 'just happen.'" His opinion is that foremen should be trained in "handling the human factors," in interpreting capital's industrial relations policy, and in acting as management representatives on councils—by lectures, conferences, and study courses. Swift & Co., the great packing company, have foremen's classes at their works and conduct an "open forum" for the answering of economic questions. Here, such an effort to swing the minor officials clear on the side of the employer would clash against the new movement for the separate organisation of technical and superintending officials.

In no way does the strangeness (to us) of American conditions appear more clearly than in Mr. Calder's advocacy of what he calls "employes representation." National agreements are not for him; his ideal unit is the individual works, though he is fully prepared to give the union element at a plant its full proportional representation. His plan is that of an improved "Shop Committee"—those imposed upon industry during the war have, he says, disappeared in failure. "In July 1922 between seven and eight hundred concerns in the United States were reported to be using some form of employes' representation in their plants," and Mr. Calder describes in detail the form adopted in Swift & Co.; the full documents in the Appendix will repay study. Essentially, these bodies are conciliation committees, with the power to make suggestions to the employer for the better conduct of his business, and in membership they are equally representative of the management and working staff. The right to strike in the last resort is reserved, and Mr. Calder strongly asserts that any attempt to use the organisation for union-smashing will doom the movement to failure.

Much that is interesting in the book must be omitted for lack of space, but the chapters on profit-sharing may be commended to those who in a hurry have discovered a new way of ensuring peace. On unemployment, Mr. Calder holds that the first duty is on the employer to guarantee a "steady job" to the worker, to stabilise industry by carefully studying and

smoothing out its cyclical movement, and then to care for the necessary surplus labour at the expense of the industry by private insurance. When this course has been worked out to the fullest, then, and then only, the sphere of the State can be determined. This problem, at least, Mr. Calder has studied *in vacuo*. Still the book is interesting and in many ways very suggestive.

HENRY W. MACROSTY

The Engineering Industry and the Crisis of 1922: *a Chapter in Industrial History*. By A. SHADWELL, M.A., M.D., LL.D. (London: John Murray, 1922. Pp. vi + 90. Price 1*s*. 6*d*. net.)

THIS little book appears to aim at stating the case of the engineering employers in the big dispute of last year. The author has done his work, as might have been expected, with ability and clearness. His treatment on the whole is fair and reasonable. Moreover, the book is not a mere controversial broadside. It gives, again primarily from the employers' point of view, a short history of industrial relations in the engineering industry, which is of real value. Particularly useful is the chronological table of developments in the industry since 1663 (pp. 7–9), and the collection of the documents in the appendices is welcome.

The general effect of the book is in some ways favourable to the Engineering Unions; and it is noteworthy that their attitude is commended in some quite fundamental matters. Both between 1907 and 1914, and after the Armistice, their steadiness and moderation are emphasised. Again, the history prior to 1875 gives an impression of self-restraint that is the more remarkable in view of the handicaps imposed, upon what now appear perfectly fair actions, by the Combination Laws.

Indeed, the author's ability and moderation do not prevent his arguments from strengthening in some ways the case for the Unions. In insisting upon the existence of agitators, communistic aims in certain sections, harassing action in individual cases, he is on firm ground. But these things do not obscure the strong points of the men's side. The need for unhampered progress in the industry may be admitted, and Dr. Shadwell puts forward at least a case for a greater freedom in engineering than in other industries. But this should be accompanied by reasonable safeguards of the men's position. "In an industry

so unceasingly progressive and changeful no privileged place can be reserved for a particular caste." But if the industry and the nation are to benefit, provision should in equity be made for those who may suffer by the changes. To the craftsmen their skill is their capital, and they can rightly claim protection against loss of livelihood. This too often they have not had. On the contrary, Dr. Shadwell insists that "advantage has too often been taken of them: it is impossible to acquit the employers of the charge."

Of the points at issue last year, that of overtime was in many ways an open one on the basis of existing agreements. The Unions seem to have overstepped the mark, in claiming that it should not be worked without their consent; and, if they had contented themselves with this, the employers' case would be very strong. But the agreements are admittedly limited to *necessary* overtime. And between absolute Union control and the employers' claim to be sole judges of necessity there is surely room for a middle course. The latter, indeed, could be so used as to make the limitation practically a dead letter.

On more general grounds the workmen's case was, in the prevailing circumstances, stronger. Overtime, in periods of depression and unemployment, can only be justified in certain special emergencies. Liberty to work some men overtime at the expense of keeping others out of employment—and this would in practice be the result of the employers' claim—is very difficult to justify. Moreover, apart from these special emergencies, the employers' assumed need for overtime rather suggests a desire for a big reserve of unemployed. In some cases it seems to be due to bad management. Dr. Shadwell admits the natural anxieties of the Unions on the question of unemployment, whilst his arguments for the employers' standpoint are, for him, weak, and thus seem to indicate that there is little to be said.

The real ability, indeed, with which he argues the case for the employers thus tends to emphasise its weak points. In other matters, as, for instance, in regard to control, that case is stronger, though here also Dr. Shadwell does not altogether meet the real and legitimate claims of the men. At the same time the strong points in this case—and in parts it was undoubtedly strong—receive their full weight. And there is much in the book that is of real value for its own sake, quite independently of the case of either side.

N. B. DEARLE

Report on an Enquiry into Working Class Budgets in Bombay. By G. FINDLAY SHIRRAS, Director of the Labour Office, Government of Bombay. Pp. 299. 1923.[1]

THIS is a companion volume to the Report on Wages and Hours of Labour in the Cotton Mill Industry noticed in the ECONOMIC JOURNAL, p. 265, 1923. The two together supply materials for a picture of labour conditions in Bombay, and the present volume has also the object of providing data for the criticism of the current Cost of Living Index Number.

It is well known that the difficulties in the collection of adequate family budgets from moderately educated Europeans and Americans are very great, and these are enhanced when illiteracy is common. The getting together of 3076 budgets that survived severe criticism is a noteworthy feat; the method followed was to employ native investigators who kept in close touch with the families during the month which each budget covers. It is a weakness that the collection was spread over twelve months (May 1921 to April 1922), during which prices were rapidly changing, and comparability with future investigations will be vitiated owing to the abnormality of the period covered.

An interesting feature of the collection is the inclusion of 603 budgets of men living singly in Bombay and supporting wholly or in part their families in the country, to whom on an average 26 per cent. of their income is remitted. The remaining budgets were collected from ordinary family groups, the bulk of which (2030 out of 2473) contained two adults only; of these, in 211 cases there were no children, in 521 one, in 713 two, in 398 three, in 187 four or more. The "mode" is definitely man, wife and two children. This cannot be directly compared with the average English family, since the selection in Bombay was mainly limited to self-contained families consisting of a husband, wife and children, and therefore tended to exclude childless and very small families. It is the more remarkable that the number of children should be so small, and that any preconceived idea that a working man has normally three children to support is as erroneous in Bombay as in England.

The average monthly[2] income shown in the family budgets is 52Rs. 4a. 6p., which corresponds closely with the wages found in the previous volume, and the incomes are adequately distributed

[1] Obtainable from the Superintendent, Government Printing and Stationery, Poona. Rs. 3-14-0.

[2] It is doubtful whether the budgets covered a calendar month or four weeks. The wage comparisons made suggest four weeks.

about this average, ranging from below 30Rs. to over 90Rs. The average number of wage-earners to a family is 1·54, and on the whole the larger incomes are attributable to the presence of two or more earners. In the poorest families the number of children is fewest, a fact attributed by the author to very high infant mortality.

Careful tables and illuminating diagrams are given to show the proportions of income spent on food, clothing, etc. If we exclude miscellaneous expenditure these proportions may be compared with the weights used in compiling the Cost of Living Index Number for the United Kingdom, and with statistics of budgets in the United States thus:

	Bombay	U. K.	U.S.A.
Food . . .	69·7	62½	52
Clothing. . .	11·7	17	23
Rent . . .	9·6	12½	18
Fuel and light .	9·0	8	7
	100	100	100

Similar comparisons can be made from Table XX for many countries. In view of the fact that 97 per cent. of the families included in Bombay live in single rooms the proportions on rent is high relatively; actually the rent is only 1 or 1½ rupees weekly. This suggests that comparisons between the low scale of expenditure in India and the higher scale in Europe should only be made with great caution.

It is regrettable that in spite of the number of tables and the ingenuity of the statistical devices employed, there is no attempt to estimate the adequacy of the diet, which is mainly vegetarian, on the basis of calories. The average appears to be slightly lower than the ration allowed in Bombay jails for prisoners on light labour, but a rather more careful analysis would be needed before this statement was established. A. L. BOWLEY

Co-operative Consumers Societies in the United States in 1920 (Bureau of Labour Statistics, No. 313). By FLORENCE E. PARKER. (Washington. Pp. 146.)

Co-operative Credit Societies (Credit Unions) in America and in Foreign Countries (Bureau of Labour Statistics, No. 314). By EDSON L. WHITNEY. (Washington. Pp. 60.)

MISS PARKER'S pamphlet gives an interesting account of the position of Consumers' Co-operation in the United States, which was one of the first countries to follow the lead of the "Rochdale

Pioneers." It set up its first Consumers Organisation at Boston in 1844, but evidently the soil was not congenial to this type of Association, for after nearly seventy years of effort the movement, having regard to the growth of population and progress in other directions, has not much to show when compared with what has been done in Great Britain and elsewhere in Europe. There appear to have been curious "fits" of co-operative enthusiasm, and from time to time in different parts of the country; hundreds of stores have been started only to rapidly die out.

The last "fit" of this kind was in 1874, when a "purely co-operative organisation," the Sovereigns of Industry, "opened stores all through the North Atlantic coast States." This movement failed in 1879.

The average membership for each of the approximately 1600 Societies was in 1920 less than 300. Of late, however, and especially during and since the war, interest in "all lines of co-operative activity has revived."

The section of the pamphlet dealing with failures would have been more interesting if some reasoned explanation for the failure of this movement to "catch on" in the States had been given. "Insufficient capital, lack of co-operative spirit, inefficient management, lack of patronage," and so on as reasons do not carry us very far. May it not be that the possible savings by co-operative action are regarded by the highly paid workmen of the States as not worth troubling about, or that the country, as compared with the older countries of Europe, gives more opportunity for individual advancement and thus draws away from co-operative effort those strong characters without which even in the older countries the movement would not have flourished? Again, did the Multiple Store of private enterprise get a strong position in the States much earlier than in the older countries, and with its very efficient and economical methods fill the place elsewhere taken by the Consumers Store?

Mr. Whitney in the first few pages gives a very brief though useful account of the doings of Credit Societies in Germany, Italy and other European countries, whilst the main part of the pamphlet deals with Co-operative Credit Associations in America, including Quebec.

What has been said above with regard to the Consumers Store in the United States would appear to apply to the Co-operative Credit Society also. Such Societies have obviously not taken kindly to the American soil. The business done by the whole of the Credit Societies in all the States is trifling when compared,

say, with the operations of similar Societies in Germany or Italy, and this notwithstanding the fact that the movement to establish Co-operative Credit Associations in the United States has been on foot since 1870, when Josiah Quincy and others "petitioned the Legislature of Massachusetts to pass a law allowing the incorporation of Co-operative Banks on the Schulze Delitzsch plan." Acts authorising the establishment of Credit Unions have been passed by eleven States, but, says Mr. Whitney, "Experience has shown that the passage of Enabling Acts is not enough to promote the growth of Credit Unions, that general education in co-operation is needed, and that all ideas of the movement based on philanthropy should be dismissed and the Credit Unions operated on a strictly business basis."

The Appendix contains a good Bibliography which should prove most useful to all interested in the subject of Co-operative Credit.

HENRY VIVIAN

The Co-operative Movement in Jugo-Slavia, Roumania and North Italy during and after the World War. By DIARMID COFFEY. (England: Oxford University Press. Pp. 95.)

THIS is one of the series of preliminary economic studies of the war issued under the authority of the Carnegie Endowment for International Peace. In many of the districts visited Mr. Coffey evidently had considerable difficulty in getting reliable statistical information, for he tells us again and again that the books of the Societies were wholly or partially destroyed during the war. This, however, has not prevented our being given a very good account of the struggle towards co-operative organisation by the populations concerned, which are mainly rural. "There is *no* big manufacturing town in the whole country (Serbia), and except on the Dalmatian coast, where there is a certain amount of fishing, the population depends chiefly on the land for its support"; but there is a strong agricultural movement in every province, based chiefly on credit societies of the Raiffeisen type.

Our attention is called to an interesting effect of the war upon the financial position of the population, for we are told that "at the end of the war the average peasant found himself with large supplies of money," so that for the moment he did not need credit, but had a large amount of currency on deposit. Before the war the loans greatly exceeded the deposits; after the war the deposits greatly exceeded the loans.

In Croatia, as in Slovenia, we learn that co-operation is predominantly clerical, and the principal Co-operative Unions are largely controlled by the Roman Catholic priests. There is, however, in Slovenia an " anti-clerical " co-operative organisation run by National Democrats.

One gathers that the Mohammedan portion of the population does not take well to co-operative effort. Although the movement in Jugo-Slavia hitherto has been practically confined to meeting the needs of the agricultural population, there are " some signs " that it will develop in its " industrial distributive form." In Zagreb, for example, there are already two " consumers societies " run on " purely Rochdale lines," except perhaps that " it is directly socialistic in tendency."

Before the war co-operative activities were distinctly associated with the movement for preserving Slav independence. Now it is developing into " a purely economic movement for the uplifting of the Slav race." A proposal is on foot to unite all the scattered Unions of pre-war days into a " Union of Unions " for the whole of Jugo-Slavia. This is in harmony with, and should tend to strengthen, the spirit of unity between the various groups which go to make up the State.

In Roumania the revolutionary changes, in the land system arising out of the war have profoundly modified co-operative developments. " The Government has confiscated 2,000,000 hectares of land, which it is going to divide amongst the peasants. The land is being given free to the peasants and the owners compensated by " Government paper." It has further been enacted that no individual may own more than 500 hectares of land. " Each group of peasants which is to be given confiscated land is compelled to form a co-operative society to develop and work the land temporarily until the State is able to make a permanent division."

The Roumanian Co-operative Movement is State controlled to " a degree unknown elsewhere in Europe and comparable only to India."

The publications reviewed in the last issue of the JOURNAL deal more fully than Mr. Coffey with the movement in Italy, but he brings out the interesting fact that the productive societies of Italy have between 300,000 and 400,000 members, and employ about 2,300,000 workers, or roughly one-seventh of the population.

HENRY VIVIAN

Die Gemeinwirtschaft. Untersuchungen über den Sozialismus. By LUDWIG MISES. (Jena: Fischer. 1922. Pp. 503, 8vo.)

IF Liberalism may be called an English idea, Socialism is certainly a German one. True, the earliest conceptions of Socialism are due to English and French reformers, but Socialism has never gained, either in France or in England, so great an influence as in Germany and amongst the peoples of Eastern Europe who have been dominated by German thought, such as the Russians and Czechs. On the other hand, Liberalism has never taken root in Germany, where it has always been suspected in the eyes of the authorities, philosophers and even economists alike. With the exception of Wilhelm von Humboldt, Germany has never produced a great and original Liberal thinker, and even his writings have had but a small influence on opinion. The opponents of Marxism in Germany are therefore by no means Liberals. In opposing the Marxian doctrine they condemn Liberalism no less. During the Great War and subsequently some professors have contrasted the "true German Socialism" with Liberalism, which they treat as an invention of French and English and principally of Jewish writers. In a recent paper on "Prussianism and Socialism," Oswald Spengler, whose *Untergang des Abendlandes* (Munich, two vols.) had an unparalleled success, put forward the Hohenzollerns as the parents of a "true Socialism," and alleged that the English, the French and the Jews joined to spoil the Prussian Model State, which alone could have saved the world.

In these circumstances it is remarkable indeed that Professor Mises of the University of Vienna endeavours in a large work to refute Socialism and to defend Capitalism. In his earlier treatises (*Theory of Money*, 1912; *Nation, State and Economics*, 1919) Mises has already proved that he sees things in a different light from that in which the leading official economists see them. He now makes a more severe attack on the Socialist ideal than has ever been made before in any German book.

In his opinion the fact that a society in which the means of production are owned by private capitalists, is composed of rich as well as of poor, is no argument against the system. Bentham said: "The laws in creating property have created wealth; but with respect to poverty it is not the work of the *laws*—it is the *primitive condition* of the human race." The principal question is, whether Socialism is able to improve the efficiency

of labour or not? Now, in fact, in a Socialist society the efficiency of labour must be much worse than in a capitalist one; Socialism, therefore, would not have the disposal of such a quantity of goods as the modern capitalist society; it could not distribute so much among its consumers as Capitalism could. Mises insists further that a Socialist commonwealth would not even be able to calculate well. Rational production is based on the fact that wholesale and retail prices are fixed by the haggling of buyers and sellers, and these prices are the standards of commercial calculation. In a Socialist society, where there are no prices, there would be no measure of value for commercial and technical reckoning. In an intricate research Mises shows that it is impossible to avoid the obstacles to the realisation of the Socialist ideal which arise from that cause.

Mises contests also the theory that social evolution must necessarily bring about a Socialist future. The Marxian theory of the Struggle of Classes is as carefully criticised as the theory that the further development of trusts and combinations must necessitate a change in the social order. In the opinion of Mises the ethical argument for Socialism too is false and he declares himself a follower of the utilitarian philosophy of Bentham, Mill and Feuerbach. If private property is a necessary institution and if, under the system of private property, life is happier and riches are greater than under any other social system, there is no reason to believe that private property is in itself opposed to ethics. Capitalist society is in reality a democracy of *consumers*; every penny spent is a title to an economic vote, and enterprisers must obey the wishes of the consumers. It is a fallacy that capitalists, merchants and factory owners can do what they please; they have to obey the laws which the consumers impose on them. Guildsmen too ignore that men can realise "self-determination" only as consumers, but not as producers. Self-determination of producers is all nonsense, even under Socialism.

It is impossible to summarise briefly the entire contents of this large volume. Its author omits none of the underlying questions nor any of the ideas of Socialism. He deals with political constitution in its relation to private property as well as with family life, religion, factory legislation, old age pensions, etc., and he criticises frankly the Socialist doctrines, which he sharply calls "Destructionism." The actual success of his book is worth mentioning. Prof. Herkner of Berlin, the leader of the German so-called "University-Socialists," and president of

their "Association for Social Policy," recently characterised this work as an excellent refutation of all the conceptions of any Socialist system.

E. SCHWIEDLAND

Settlements and their Outlook. (London: P. S. King and Son, 1922. Pp. 192. Price 2*s*. 6*d*. net.)

THIS little book is primarily an account of the International Conference of Settlements held at Toynbee Hall in the July of last year. The compiler has put together a judicious blend of quotations from the delegates' speeches and papers, with descriptive matter of his own, and has produced the best brief introduction at present available to the position of the settlement movement.

The conference demonstrated the extent of the "movement," for it was attended by representatives from the United States, Austria, Canada, France, Germany, Holland, Japan, Norway, Russia, Sweden, besides those of most of our own sixty-six settlements, most of them still very young (Toynbee Hall, with its thirty-four years of life, is of hoary antiquity as compared with the great proportion of its followers), and all of them coping in their different countries with very similar post-war problems. The strongest impression left by the Report is of this essential similarity in the problems of urban, and occasionally of rural, life, through which successive speakers took cross-sections. The methods, however, by which settlements are trying to deal with the problems thus raised are as varied in efficiency and scope as the personalities of their leaders, and as the whole range of current theories of economic and social reform. Thus the Report describes the "Postes de Secours" established in the French devastated areas and developing a new social sense in the peasant; the "Soziale Arbeitsgemeinschaft," attempting to interpret a new life in Germany after the War and Revolution; the plays and lectures of our own educational settlements; the municipal cinemas attached to some of those of Japan; the very interesting "music schools" of some of the American settlements, trying, like those of Canada, to weld the foreigner into the national life, in cities so cosmopolitan that in one Canadian district election notices had recently to be posted in thirty different languages. Whatever their special point of contact with their neighbours, all settlements aim at present, according to the conference speakers, at helping the shapeless democracies of the modern industrial

town or village to develop a communal sense, and incidentally in most cases to make a reasonable use of leisure.

Beyond the fact that the settlement in all countries stands for " neighbourliness," two points emerge from the interesting reports here condensed.

(1) The settlement movement, though its age is only a little over thirty years, appears older than its years warrant, from the rapidity of the change that has come over the town population of England at least during this time, and the corresponding changes in attitude and method required from settlements. The population of the big industrial town is (in theory if not in practice) no longer inarticulate, and therefore in need, as in the 'nineties of last century, of groups of educated settlers to express its wants. Equally, much of the practical work done by the early " settlers," *e.g.* in Whitechapel or Southwark, has now been taken over by state or municipal officials. Increasingly, too, localities are learning to manage their own affairs, in other things than in local government. But there is still urgent need for settlers (and others) to help the town dweller in crowded areas to develop effective group action, whether this begins in membership of a choral society or in other more (or less) ambitious form. In this direction there is a specially valuable sphere for settlements at present.

(2) There is a clear difference of opinion and practice as to the best way of interpreting " neighbourliness." Should settlements be mainly educational, and so link themselves on to the adult education movement as it appears in different countries, or should they be " philanthropic " in the best sense of the word? The answer to this question, perennial in most forms of what is vaguely called " social work," depends largely on the temperament of the speaker and the generation to which he or she belongs. At present it has been met in England and elsewhere, so far as settlements are concerned, by the development of two types of settlement, " Educational " and " Residential," now federated separately in England. The two methods are not mutually exclusive; but their coexistence shows the need, on which delegates from settlements as well as their outside mentors insisted at the conference, of time for clear thinking in the present stage of the movement.

Some reference is made in this Report to the use of settlements as " centres for social training," formal and informal, and the protest of a vigorous American delegate against their indiscriminate utilisation for practice in research is worth consideration.

The relationship, however, of settlements to the present generation at the Universities and their contemporaries, together with practical difficulties as to finance and personnel, received comparatively little attention at the conference, which at this first international gathering deliberately concentrated on principles and main lines of development.

C. V. BUTLER

The Charity Organisation Movement in the United States. A Study in American Philanthropy. By FRANK DEKKER WATSON. (New York: The Macmillan Co., 1922. Pp. x + 560.)

"OF all the antecedents of the Charity Organisation movement in the United States, none has had a greater influence than the work of those pioneers of England just reviewed. The first Charity Organisation Society to cover a large American city (Buffalo) was transplanted direct from England. But of even greater importance was the influence of the work and writings of Edward Denison and Octavia Hill from whom the spirit of the work in America, especially Boston and New York, received great impetus." Mr. Watson's chapter on "Foreign Antecedents," therefore, outlines a history common to both countries, beginning with the contributions of St. Vincent de Paul in the seventeenth century, Casper Van Voght at Hamburg in the eighteenth century, Count Rumford at Munich, passing on to the work of Chalmers in Glasgow, Frederick Ozanam and Sylvain Bailly in Paris and ending with a brief sketch of the Elberfeld System and the circumstances under which the London Society was launched.

The two chapters on "Antecedents of the Movement in the United States" and "Beginnings of the Movement in the United States" are full of instances of the importance of material catastrophes in securing increased co-operation and systematic organisation. Sandwiched in between these chapters are two others on "The Functions of a C.O.S." and "The Principles and Methods of Charity Organisation" analysed with sympathy by a worker with inside knowledge and with the judicial detachment of mind demanded from the writer of a thesis for the Ph.D. degree.

The number of societies increased from approximately twenty-five in 1883 to about one hundred in 1895 and about one hundred and fifty in 1904, the latter period of nine years being regarded by Mr. Watson as "The Era of Movements for the Prevention of Poverty." "Although societies existed in all sections of the

country, the vast majority were still to be found east of the Mississippi and north of the Mason and Dixon line. Most of them were also still located in the relatively large centres of population. Charity Organisation Societies were to be found in over fifty of the sixty odd cities in the country having 60,000 population or over. The smaller towns and semi-rural districts were in the main untouched by the movement." "The Nationalisation of the Movement [1905–1921]" shows developments similar to those in England, and it is not until we come to Mr. Watson's analyses of "The Renaissance of Social Case Work" and "Tests of Efficiency" that we become conscious of alien modes of thought (and perhaps of feeling).

At the same time we have been reminded more than once that there is great danger of misunderstanding between English and American writers from the use of the same words with different meanings. Mr. Watson tells us that Philadelphia "followed very closely the *decentralised* plan of organisation of the London Society," and adds, "This is still the London plan. It has been abandoned everywhere in the United States." The description given of the organisation of the Philadelphia Society by Mr. Watson (himself the chairman of a district committee, or rather of a "case conference" of that Society) shows little resemblance to the system and practice of the London Society at any time of its existence. By 1901 the Philadelphia Society's Central Board "had effective control of but three wards out of the city's forty-two." Co-option of the best people by the best people rather than democratic selection has been more or less consciously the method adopted by the London Society.

Again, the English pioneers perhaps never thought of mentioning to their American friends that the "ecclesiastical parish" system in England dated back more than a thousand years even if it was "only complete in the fourteenth century" (*Encyc. Brit.*), and that the clergy of the Established Church held a position in relation to the poor in each parish which rendered their aid or obstruction of vital importance to the C.O.S. We are reminded of radical differences in environment when we read that in 1895 the Buffalo Society evolved its "Church District Plan" under which "each church accepting a district promised to assume a special responsibility for the moral elevation of its district. . . . Except in conspicuous instances the churches were able to raise little relief except for their own poor. . . . If a family requiring liberal continuous aid was assigned to a church of small means, the Society had to come to its rescue."

Fully recognising the great difficulty of writing comparative history, it is yet difficult to understand how one so well acquainted with Mrs. Bosanquet's history of the London Charity Organisation Society could write as Mr. Watson does—in one of those crystallised notes which everyone reads and everyone remembers—"The English movement has been based in the main on the Manchesterian School of Economics, with its emphasis—modern emphasis—on *laissez-faire*. In America, on the other hand, the emphasis has been on an increase in Government activity, or at least social control through legislation. The American viewpoint has been increasingly social, which, in recent times, has been finding an outlet in legislation. An example of this is the tenement house legislation in New York, in the main the result of efforts of Charity Organisationists."

What is the London Society's record on Housing? "In November 1872 it determined to appoint a Committee of Members of Parliament and others to consider what more could be done to improve the dwellings of the poor in London. . . . The Committee included Lord Salisbury, Lord Shaftesbury, Lord Derby, Lord Rosebery, Mr. Kay-Shuttleworth, Miss Octavia Hill, many M.P.'s, two Medical Officers of Health, and representatives of the various Dwellings Companies, the C.O.S. itself being well represented. At its seventeenth and final meeting in July 1873 it adopted a Report to be sent up to the Council. . . . The Council and the Special Committee acting conjointly prepared a memorial, and in April 1874 the then Home Secretary received a deputation introduced by Lord Shaftesbury. . . . In November 1875 the Artisans Dwellings Act became law. . . . In 1880 the Society initiated another campaign on the Housing Question," resulting in the passing of the Artisans Dwellings Act 1882. "The Society now turned its attention towards the formation of Sanitary Aid Committees," and so on, until 1912, when Mrs. Bosanquet's history ends.

The charge of Manchesterism and *laissez-faire* (in a Society warmly supported by Ruskin) may be contrasted with the impression of Lord Shaftesbury, the leader of the movement for factory legislation. In 1873, "when the Organising Secretary raised the question of criminal lunatics Lord Shaftesbury wrote reproaching the Society for 'erecting yourselves into a grand association for the control of everybody and everything. I certainly shall refuse to become or, perhaps, remain a member of a body so fearfully ambitious.' A Report of the Society drawn up to incorporate the suggestions of its Special Committee

[on the treatment of imbeciles] was submitted to the Local Government Board in May 1877, by a large deputation which included Lord Shaftesbury, then Chairman of the Commissioners in Lunacy. . . . A County Government Bill soon after brought before Parliament embodied a large part of its programme. Unfortunately the Bill was ultimately withdrawn, and the desired reforms postponed." The Society never slackened in its efforts in this direction, and in 1913 had the satisfaction of seeing the Mental Deficiency Bill become law.

The County of London is smaller than Philadelphia, and Great Britain is less than two Pennsylvanias, but the Central Office of the London C.O.S. has always been within a ten-minutes' walk from the Houses of Parliament and the London County Council. The successful opposition of the Society to innumerable legislative proposals on all sides has obscured from the eyes of the ever-careless "man-in-the-street" the large amount of successful effort which it has devoted to legislative improvements.

C. E. COLLET

Economic Essays. By DAVID RICARDO. Edited with Introductory Essay and Notes by E. C. K. GONNER, K.B.E., Litt.D., late Professor of Economic Science in the University of Liverpool. (Bell & Sons. 1923. xxxvi + 315.)

WHEN Professor Gonner (*quod mortale fuit*) was taken from us on 24th February, 1922, he had happily left this book ready for the printer. It includes all the smaller economic works of Ricardo [1] except the Plan for a National Bank and the Essay on the Funding System, omitted because "ephemeral in their interest" (Pref.), and perhaps also from a desire to make the second volume match the first in size. The omission spoils the book as a work of reference; but it was not meant for such.

The first volume of Gonner's Ricardo, containing the "Principles of Political Economy and Taxation," appeared in the first year of the present JOURNAL and was reviewed there (December 1891, pp. 769—774) by Dr. J. N. Keynes, the Introduction (60 pages in small type) naturally coming in for special comment. The Introduction to the present book is in larger type and fewer pages.[2] Professor Gonner had covered nearly the whole ground in 1891, as Ricardo himself had done, irregularly

[1] After the "Letters to the Chronicle," reprinted by Professor Hollander in 1904.

[2] P. xxiii, line 11, for "unrebutting" read "unremitting."

enough, in the "Principles." What the Introduction of 1891 had not done was embraced in the Appendix on Critics and the Appendix on Land and Rent. It was quite right, therefore, for the Editor to be brief in 1922.

But the essays on Bullion, Bosanquet, Economical and Secure Currency, give us far more than we had in the "Principles." Even the tracts on the Price of Corn and Agricultural Protection leave the corresponding parts of the "Principles" far behind them. On the other hand, Taxation is more fully covered by the "Principles" than by any essay. There was still some room for the present Introduction and its ripe wisdom.

If there had been time for revision, the running commentary would doubtless have told us, for example, who was the Edinburgh Reviewer who provoked a long reply from Ricardo (Gonner, pp. 43–60); it was Malthus;—and who was the "ingenious calculator" (Gonner, p. 196) who found out the Bank's cash and bullion in 1797; was it Tooke? We should have been told the fate of the Ingot Plan, about which little is said (p. xxvi). It was a pity to follow MacCulloch and leave out the Preface to the Bullion tract. But we should be grateful for what we have received in both volumes, namely, the best of Ricardo in small compass.

J. BONAR

The History of the Worshipful Company of the Drapers of London: preceded by an Introduction by the Rev. A. H. JOHNSON. (Oxford: Clarendon Press. 1922. Vol. III., pp. viii + 520; Vol. IV., pp. xi + 653; Vol. V. (Index to Vols. I.–III., and Corrigenda), pp. 1–99.)

THIS is the continuation of the great history of the Drapers, the first two volumes of which appeared in 1914 and were reviewed in the JOURNAL, XXVI., pp. 507–513. The completion of the printing of the work was prevented by the War; perhaps, too, the same cause has resulted in the later volumes being somewhat compressed, compared with what they might have been in other circumstances. Still the economic historian is provided with bountiful material and an experienced and interesting guide through its intricacies. Some idea of the magnitude of the work may be gathered from the fact that the index to the first three volumes forms a book in itself, about the size of the index to ten volumes of the JOURNAL.

Comparing the third and fourth volumes with the first two,

the reader feels himself at once in a changed atmosphere. In the former the history was mainly that of a trade guild; in the latter it is more that of a benefit society. Mr. Johnson has spent much time in classifying the actual occupations of the freemen, and early in the seventeenth century the great majority were no longer drapers. For instance, in 1624, out of 528 freemen only 25 were described as drapers or woollen drapers, while as many as 116 were tailors, 46 were silk weavers or in other ways connected with the silk industry. Yet no sooner does one describe the Drapers' Company as being of the nature of a friendly society at this time than the need for qualification at once arises. It was a friendly society, not indeed mainly of drapers, but of business people and, in the main, with some sort of connection with the textile industries of the period. No doubt where we find a minority of members falling outside this general classification, there may have been some family connection with these trades. Further, too, the Company was affected by its own history, and early in the seventeenth century it bore its share in some of the great commercial adventures of the period. Thus it or its members or both became shareholders in the Company for discovering a North-West Passage, in the Virginia and Sommers Isles Companies, and also in the London Plantation in Ireland. Quite possibly a comparison of the list of freemen of the Drapers' Company with that of the shareholders in the Virginia Company (which is in existence) would enable the names in Vol. IV. pp. 88–89 to be extended considerably. The connection with Virginia was short—that with county Londonderry in Ireland lasted for about two centuries and three-quarters. The general policy and procedure of the Irish Society (which was the incorporated body administering certain property which was not conveniently divisible amongst the Livery Companies) is fairly well known, but there is much less information as to what happened regarding the proportion of land assigned to some of the Companies. Mr. Johnson traces this with great detail and with ample documentary evidence. To students of the administration of landed property his work will be of great value. While it is of very great interest, the subject is too technical to be dealt with adequately here. Probably the main question is whether a London Company could be a good landlord. Mr. Johnson is able to produce a considerable body of evidence towards a favourable verdict. Of course the circumstances have to be taken into account. The Company received a district on the borders of counties Antrim and Tyrone wasted by war. It was

temporarily dispossessed by decree of the Star Chamber after proceedings extending from 1625 to 1635. There was the rising of 1641 and the scouring of the country by the army of James II. The documents tend to show that the Company entered on and pursued its task with a due sense of responsibility. For the rest it depended on the one hand upon the integrity of its representatives and still more upon the energy of those to whom it made leases of comparatively large areas. In 1638 the whole property was administered by six freeholders, three leaseholders and one tenant of the manor. That there was rapid progress since the beginning of the eighteenth century is obvious, as, for instance, in the growth of Draperstown, and there can be no question as to the extent of the public and charitable contributions of the Company. Perhaps the most interesting aspect of the situation was that evidently the Company endeavoured to apply (subject to the difficulties of distance) the best traditions of English estate management to its property in Ulster.

As to the general development of the Company, the change in its activities mentioned above makes these volumes less important to the student of commerce but of surpassing interest as regards social development. They contribute vastly important evidence towards the filling of a serious gap in our historical knowledge, namely, how plain, ordinary people were affected during great historical events. In the seventeenth century there is the great historical pageant of constitutional disputes, the Civil Wars and the Revolution. How did these epoch-making events react on the lives of the people? Until recently those whom the problem interested might speculate, with more or less success, but now we are beginning to know, and in the growing body of such knowledge the Drapers' records will occupy an important place as regards life in London. They show first of all—and this is not least important—a change in the national attitude. During the greater part of the reign of Elizabeth the awakening of the nation had gone to people's heads like wine. Checks to enterprise, such, for instance, as outbreaks of plague, were little more than pauses in a time of excited and sustained adventurous advance. After such a period, reaction was to be expected. Generally speaking, one wonders that in the second half of the sixteenth century unfavourable conditions had so little effect, in the succeeding fifty years one is surprised they had so much. Certainly the change in the national psychology is writ large throughout the proceedings of the Drapers. Thus it is recorded in 1605 that many of the houses of the Company had gone to ruin,

seven years later there were only 71 livery-men. During the reign of Charles I, 15 persons refused to serve as Warden, and during the Interregnum 14 again declined service. The best comment on the distraction of the Civil War is in the increased charity of the Company, and, still more, in so far as this information survives, in the increased claims on the Company for assistance. Here it is impossible not to sympathise with the difficulties of the officials. It is common knowledge how much strain has been placed on the funds of charitable bodies during the present period of unemployment. But these institutions have an advantage which was denied to the Drapers in the seventeenth century in so far as their income from investments is secure. The position of the Drapers was very different. The ordinary form of investment at the period was in real property, and the troubles of the time made it difficult to collect rents. Loans to the Crown or later to the Parliament were regarded as highly speculative business and had to be forced from the Companies. Indeed in 1640 the Drapers refused to lend to Charles I. The estimate was right, but the authorities would not be denied, and thus the Drapers and other bodies had to find capital the payment of interest on which was most uncertain. Accordingly, with increasing applications for aid, the income was unfortunately precarious, and in 1649 the Drapers had loans of £12,000 outstanding on which interest was not being paid, and the Company petitioned for aid to prevent its utter ruin.

In one respect these records are curious reading. It will be seen that the Company had very special anxieties arising out of the state of the country, and one follows in detail how it attempted to deal with them. One might expect that there would be considerable discussion of the great historical questions which agitated men's minds, but this is not so. On the contrary, there is no discussion—scarcely indeed any mention of the causes of the perplexities of the Company. In this connection it is highly significant that there are only two incidental allusions to Cromwell. The reason suggested by Mr. Johnson is probably the true one, namely, that the members were divided upon political events, and that therefore these were not discussed. The Company endeavoured to do the best the circumstances permitted in relieving the resulting distress. That it succeeded is much more significant than appears on the surface. One imagines there may not be many countries in which a similar compromise would have been possible. Of course such action was utterly illogical, if political strife admits of a clear issue— and yet after all it may

have been the higher logic. It at least offered a measure of insurance towards political and social reconstruction when the political issue had been settled, and made recovery more rapid than could have been the case otherwise.

After the Restoration it was long before the Company entered into calm waters. The records, upon which the history is based, had a narrow escape during the Great Fire and were only preserved owing to the devotion of the clerk of the period, G. Inice. From 1680 to 1690 this Company was involved in the fluctuating disputes about the government of London, but on this topic its records provide little fresh information. It was in the eighteenth century that it settled down to its proper rôle as a charitable institution free from undue external distractions. An important factor in its success was the care with which trusts were administered, upon which point Mr. Johnson gives a number of interesting extracts from the records.

W. R. SCOTT

An Essay on the Economic Effects of the Reformation. By GEORGE O'BRIEN. (London: Burns, Oates & Washbourne. 1923.)

IN this essay the author attempts to prove that modern Capitalism and Socialism are the products of Protestant and more especially of Calvinist doctrines.

Modern Capitalism he defines as the " accumulation of wealth as a good in itself." The wealth amassed by the capitalist " is not designed for himself or for his own enjoyment; it has ceased to be a means and has become an end; and success in business is not regarded as desirable because of the opportunities of leisure or enjoyment which it provides, but because it is the outward and visible sign of the successful accomplishment of a vocation."

It is no doubt true that some capitalists get so deeply immersed in their profession that they care for little else, but the desire to accumulate wealth for its own sake seems to us to be rather the characteristic of the miser. As a definition of a class it is surely a very narrow view. Nor is it true that all capitalists are out " to exploit the labours of others " while doing nothing themselves. To say this is to forget the enormous amount of brain-work done by the master of industry, and the statement savours of the popular heresy that all wealth is the product of manual labour. Nor is it at all universally true that our great industrials have no thought for the welfare of their

employees. And, if it be more correct to say that the investors in a joint-stock business know nothing of the workmen and have lost the personal connection which existed between the great *entrepreneur* and his workmen, it is absurd to say that they are interested in accumulating wealth for wealth's sake, and not for the enjoyment which wealth brings.

This form of capitalism, we are told, was in the Middle Ages checked by the religious and ethical teaching of the Catholic Church. She insisted on " the subordination of all commercial and industrial activities to the moral law." She taught the lessons " of love and duty " and enforced her principles by religious sanctions. But when once the Reformers had broken away from her guidance and insisted on the right of individual liberty and of private judgment, that restraint was abandoned, and, while they insisted on the necessity of faith, they lost sight of the importance of good works.

Moreover, " the fundamental principle of the reformers that man's unaided judgment was the only sure test of religious truth, which led to the rejection of the authority of the Church and to the adoption of the Scriptures as the only source of revelation, afterwards came to be turned against the authority of the Scriptures themselves. Hence numerous sects arose and heresy has always been the foster-mother of revolutionary and equalitarian opinions."

Finally, the Church was looked upon by the Reformers as an institution concerned exclusively with the religious life of its members, and thus the spiritual life and the temporal life became dissociated. Thus the whole moral tone of society was lowered, " till at the present day the average man scoffs at the suggestion that the Church has any claim to interfere in the direction of the political, economic, or social affairs of the nation."

Man thus left without the spiritual guidance of the Catholic Church and possessed by the demon of individual freedom and private judgment, devoted his working days, if not his Sundays, to the accumulation of material wealth, and finally developed the utilitarian theory which held that in devoting himself to the pursuit of selfish interest he was advancing the best interests of all. " Hence the rise of the modern Capitalist, of the doctrine of unlimited competition, and of the removal of all restraints by the State." And all this " is analogous to the insistence by the Protestant on freedom from all restraints of the Church. It is private judgment translated into the realms of industry."

Now all this appears to us to be a travesty of the truth.

The pictures drawn of the conditions of industry in the Middle Ages are far too highly coloured, while the absolute breach between religion and life in Protestant countries is overdone. The attack also on the classical school of economists and on the utilitarians is grossly unfair. It is quite untrue to say that the utilitarians were mere hedonists; that they held the only aim of life to be the pursuit of pleasure or of material prosperity. They believed indeed, perhaps wrongly, that the State itself could do very little to promote the moral welfare of mankind, and that all that it could usefully do by direct action was to promote the material welfare of the greatest number.

As for the "classical economists" they acknowledged that their science was a strictly limited one; that, as it was impossible to reduce to scientific analysis and co-ordination the many motives which influenced man, they were only dealing with an abstract person, the "economic man," and, given the economic interests and impulses of mankind, they tried to discover the "tendencies" of certain economic conduct. It may be true that they did not always clearly explain themselves, certainly they were often misunderstood; but none of them denied that men were ever moved by other than economic motives, nor that the State was justified in subordinating economic results to social, moral or political considerations.

We do not deny that the Protestant spirit of individualism and self-reliance did tend to further the development of industries on a large scale and helped to increase the numbers of those who were qualified for the management of these industries. But we are convinced that the economic necessities of the time were the real cause of the development of these industries and that they would have arisen even if the Reformation in religion had never occurred. There is abundant evidence to prove that the change had begun at least as early as the fifteenth century. Indeed, as early as the close of the thirteenth century, we have an instance of a draper of Douai, who was a great merchant *entrepreneur*. His house was not a factory but a depôt of raw wool and of cloth, and a place of business. He not only bought and sold cloth but made it himself. He resembled a great modern *entrepreneur* except that the actual industry was carried on in the homes of the workers instead of in a factory. He had reduced his employees to a condition of helpless dependence. They were most of them in debt to him, many lodged in houses rented of him, and he had established a kind of truck system.[1]

[1] Cf. *Vierteljahrschrift für Social und Wirthschaftsgeschichte*, iii. 35.

Much the same may be said of the famous Jack of Newbury of the time of Henry VIII, while many of the members of the greater guilds, such as the Drapers, the Goldsmiths, the Fishmongers, as well as the Merchant Adventurers, were great capitalists and masters of industry. Who, again, has not heard of the Bardi, the Peruzzi and the Fuggers? Indeed, the rise of the capitalist was inevitable, as industry and trade became, not only national, but international, and as the improvement of machinery demanded larger capital, and an *entrepreneur* to provide it and to manage an extensive business. Nor was the change confined to Protestant countries.

But Dr. O'Brien is not satisfied with insisting that modern Capitalism is a product of the Reformation. He holds it responsible for the later move towards Socialism, because, forsooth, it was a reaction from the abuse of Capitalism. If we are to follow this line of argument the rise of Capitalism itself might be attributed to the Catholic Church, since the Reformation was a revolt from her doctrines and her attempt to check and control individual liberty and independence.

Nor, finally, were socialistic theories confined to Protestant countries. Many of its most powerful advocates were born in Catholic countries, and there is nothing in their ideals which is incompatible with the maintenance of a united Christian Church.

In conclusion, the essay is the work of an advocate. He has got up his case well, and there is evidence of much industry in the collection of his evidences. But, like most advocates, he overstates his case; and he forgets his own warning, that "it is not possible to isolate the part played by religious belief from that played by other factors sufficiently to ensure that some non-religious influence is not being left out of account" (p. 10).

ARTHUR JOHNSON

Le Boycottage devant les Cours Anglaises, 1901–23. Par RENÉ HOFFHERR, Chargé de Conférences à la Faculté de Droit à Lyon. (Paris: Giard. 1923. Pp. 181. Prix 10 fr.)

THIS book forms Volume IV of the Bibliothèque de l'Institut de Droit Comparé de Lyon, and is a discussion of the cases tried before the English courts arising out of Quinn *v.* Leathem and the Trade Disputes Act of 1906. The author notes two antagonistic currents in English law, one for the repression of all actions tending to restrict the liberty of the individual, the other for the abstention of the courts from disputes between employer

and workman or between workman and workman. When industry was under the rule of free competition the lawyers evolved the doctrine of "restraint of trade," under which any conduct fettering the free action of merchant, manufacturer, or workman was held to be illegal. With modern evolution of industry into agreements or associations of employers on the one hand and into trade unions of workpeople on the other, a new customary law developed having as its very object the restriction of free competition, the unrestrained working of which was now found to be hurtful. The legality of such associations of employers was established in the Mogul Case in 1892, and in Allen *v.* Flood (1897) the House of Lords refused to interfere with the action of a trade union to exercise compulsion on an employer in his manner of conducting his business. Four years later, however, in 1901, this immunity of trade unions was upset in Quinn *v.* Leathem, and only after a political campaign was it restored, in intention, by the Trade Disputes Act. The decisions of the courts during the past seventeen years have not by any means been harmonious, and a new principle, the rights of third parties, has been evoked, notably in Pratt *v.* British Medical Association (1919), where a medical man recovered damages for boycott. The latest case of Braithwaite *v.* Amalgamated Society of Carpenters, Cabinetmakers and Joiners (1922) also registers a deviation from the apparently established practice of non-interference in disputes between workmen. This same state of legal confusion exists in French and American jurisprudence, and it still remains an unsolved problem, how to reconcile ancient legal principles with modern industrial developments, or what new principles should be evolved to regulate the rights of persons engaged in industrial disputes.

HENRY W. MACROSTY

Sparta und seine Symmachie. By ULRICH KAHRSTEDT. (Göttingen: Danderhoeck. 1922. Pp. xii + 443.)

THE finances of Sparta were in time of peace "quite parochial," as Mr. Zimmern puts it. But even then they give birth to many interesting problems, amongst others to the question why they have remained such. Their interest grows in time of war and is much more keen now that modern Europe has fought a war that has much in common with the terrible struggle that marked the twilight of classical Greece.

Unhappily the sources are scanty and somewhat obscure.

Hence the fact that except a little book published in Greek by the reviewer (Athens, 1915), no study has been written on the finances of Sparta. This is one reason more to welcome Kahrstedt's exhaustive work. Of course it approaches Sparta from the legal and not from the economic point of view; as a matter of fact it forms the first volume of a treatise on Greek Public Law (*Griechisches Staatrecht*). But the author had to face many economic questions, and he has faced them well. The chapter in which he explains how the Great War was financed from the Spartan side, and why the financial war-system of the Spartan Symmachic had to be for legal reasons quite different from that of the Athenian group, are of great value to financial history. So are also many other pages, for instance, the one on the vexed question of the taxation of the *perioikoi*.

A. ANDREADES

The History of Greek Agriculture. By DEM. L. ZOGRAPHOS. (Two first volumes, Athens, 1921, and 1923.)

THIS is the first attempt to give a complete picture of the evolution of Greek agriculture during the last hundred years. The two first volumes describe the state of affairs on the eve of the Greek revolution, during the war of independence and during the first years of the new kingdom. Two others will bring it down to the present day.

M. Zographos is a journalist, and he has both the qualities and the drawbacks of his profession. He is extremely readable, but is not afraid of digressions. His work requires some boiling down. Apart from this he deserves much praise. He has collected and marshalled an immense amount of material little known or not easily accessible. His difficulties were specially great for his first chapters, as the Turks troubled themselves little about collecting data and figures about agriculture. However, besides several Greek local documents, the British and French Consuls and the then frequent tourists have preserved for us a good deal of information, and M. Zographos has made good use of it. His work will be of great use to anyone wishing to study modern Greece.

A. ANDREADES

La Partecipazione degli Operai nell'Ordinamento e nella Gestione delle Imprese Pubbliche e Private. By ANTONINO VITALE. (Milan: Hoepli. 1922. Pp. 271.)

The Economic Resources of Italy; their Development during the Last Twenty-five Years and their Present Condition. Two volumes. (Milan: Credito Italiano. 1920.)

DR. VITALE has brought together a good deal of useful information regarding the control of industry in various countries. He has also summarised, in their appropriate national setting, the chief proposals, which are in the air, for securing a greater degree of "workers' control." His book has considerable value as a work of reference on these subjects, though he is often compelled, through lack of data, merely to quote laws and regulations without attempting any estimate of their practical effect. An example is the interesting French law of 1917, which permitted joint stock companies to give votes to their employees, in proportion to their earnings, at shareholders' meetings. One would like to know how widely this power has been used, and with what results.

The author's own attitude is, on the whole, conservative. He is opposed to anything in the nature of collectivism, and is doubtful whether wage-earners are competent to participate in the control of industry without seriously imperilling production. But he approves of collective bargaining and believes that there is scope for a considerable increase in profit-sharing and in producers' co-operative enterprises. He thinks that trade unionism has had great educative value in England and that the comparative absence of a trade union tradition in Italy is a source of weakness.

The Credito Italiano must be congratulated on the production of these two volumes on the Economic Resources of Italy. They are excellently printed and illustrated. Indeed the second volume consists entirely of illustrations. The letter-press contains a mass of information on every aspect of modern Italian economic life, the growth of population, agriculture and industry, banking and insurance, railways, shipping, foreign trade, the tourist traffic, public finance and the Italian colonies. The first volume also contains a series of panoramic views of the principal Italian towns, and the second a great variety of photographs illustrating every phase of economic activity. In the clear air of Italy the photographer, especially when possessed of the gift of artistic selection, wins easy triumphs. But the

Credito Italiano must have spent a large sum on this pleasing form of advertisement. The price at which it is supplied to the public is not stated.

HUGH DALTON

Banking and Currency. By W. J. WESTON, M.A., B.Sc. Lond. (London: W. B. Clive. University Tutorial Press. Pp. viii + 330.)

IN his Preface Mr. Weston says that his book, "though intended primarily as a handbook for candidates, will also serve, one hopes, as an introduction to the subject for all interested in our currency system and in its changes consequent upon the Great War." He has succeeded better in his first object than in his second. The book, in its fifteen chapters and nine appendices, contains a large amount of information with regard to the history of banking and currency, the functions of money, the principles of banking, as well as an outline of monetary theory and a good deal of technical matter. It is fairly clear, and on the whole accurate. But Chapter VIII, on "Measuring Variations in the Value of Money," which deals with the quantity theory, leaves too much to the imagination of the reader, while there are doubtful statements and occasional slips to be found here and there. For instance, to say that "there was little demand for money" (p. 120) during the war period is misleading without a good deal of explanation, and to say that the Bank of England on the outbreak of war issued notes in excess of the *minimum* (p. 152) is an obvious error.

The author skates rather lightly over the many difficult monetary problems which have arisen since the war, and with which we are at present beset. But the book provides information which should certainly help its readers to form reasoned judgments with regard to such questions. It is probably a useful cram-book for the examinee; in fact, it may be too useful, and have the effect of drawing aside the attention of students from more scientific works. But, on the other hand, the book is not very readable, perhaps because it is primarily intended for examinees. Mr. Weston has tried hard to make it attractive, but one is left with the impression that he has tried a little too hard.

H. SANDERSON FURNISS

Trade Transport and Finance, with Examination Questions on the Theory and Practice of Commerce. By G. MAIRET. (London: Macmillan. 1923. 444 pp.)

Applied Business Finance. By EDMUND E. LINCOLN. (Chicago: Shaw. 1922. 423 pp.)

MR. MAIRET, who is known as the author of *Principles and Practice of Business*, has now produced an excellent manual for first-year economic students, furnished with forms such as a specimen Bill of Lading and with numerous tables. A close inspection of a few details shows that it has been compiled with great care. The historical part is well written and the arrangement is excellent and logically conceived. The printing is accurate and we have only noticed one insignificant misprint.

IN contrast with the above, MR. LINCOLN'S advanced course of business lectures is mainly devoted to the absorbing preoccupations of those who wish to raise capital either to incept or carry on trading enterprises on a considerable scale. The book is substantially concerned with American conditions to an extent which would make it of little interest to English readers if it did not contain information of exceptional value on the working of the new Federal Reserve Banking System, which is destined without doubt to have an enormous influence on currency questions of international importance. For instance, the contest in America between "single-name" and "double-name paper," in which the newer method will probably carry the day, is one more proof of the wise saying of Mr. Lincoln (p. 488), that "it will require considerable time before our methods will be so well standardised as those of England, where separate 'acceptance houses' specialise in accepting drafts drawn in foreign trade transactions."

G. B. DIBBLEE

NOTES AND MEMORANDA

AN UNPUBLISHED LETTER OF ADAM SMITH

[The following letter from the Glasgow University library formed one of the exhibits at the recent centenary exhibition.]

Mr. THOMAS CADELL,
Bookseller,
Strand,
London.

DEAR SIR,

You have very great reason to wonder at my long silence. The weak state of my health and my attendance at the Custom House, occupied me so much after my return to Scotland, that tho' I gave as much application to study as these circumstances would permit, yet that application was neither very great nor very steady, so that my progress was not very great. I have now taken leave of my Colleagues for four months and I am at present giving the most intense application. My subject is *The Theory of Moral Sentiments*, to all parts of which I am making many additions and corrections. The chief and most important additions will be to the third part, that concerning *The Sense of Duty*, and to the last part, concerning *The History of Moral Philosophy*. As I consider my tenure of this life as extremely precarious, and am very uncertain whether I shall live to finish several other works which I have projected and in which I have made some progress, the best thing, I think, I can do is to leave these I have already published in the best and most perfect state behind me. I am a slow, very slow workman, who do and undo everything I write at least half a dozen times before I can be tolerably pleased with it; and tho' I have now, I think, brought my work within compass, yet it will be the month of June before I shall be able to send it to you. I have told you already, and I need not tell you again, that I mean to make you a present of all my Additions. I must beg, therefore, that no new edition of that book may be published before that time.

I should be glad to know how the sale of my other book goes on.

I am ashamed of the trouble I have so often given you about the Philosophical Transactions. The second part of 1787 is now due to me; and the first part of 1788, if it is yet published. I should be much obliged if you could find a clever way of sending them to me.

Remember me most affectionately to Strahan, and believe me to be,

My Dear Sir,

Most affectionately yours,

ADAM SMITH.

Edin.

15th March, 1788.

MAINTENANCE OF ORGANISED MARKETS

IT is generally recognised that speculation by dealers on the organised produce markets is of value to the community. Foolish speculation, such as that of amateurs mostly is, tends to upset the equilibrium of prices: informed speculation by those who make a professional study of the market is, on the average, successful, and so both provides profit for the speculator and performs a public service in steadying prices.

So far there seems to be agreement; but the question as to where the profits come from has been little studied, and the impression that is prevalent is, I think, erroneous. Thus Mr. J. G. Smith, in his admirable descriptive account (*Organised Produce Markets* (Longmans, 1922, p. 121)), states :—

> "Yet . . . it is difficult to see how the speculative market can be maintained for the legitimate traders without the admission of the foolish outsider also, in quite considerable numbers. As has been pointed out already, it is from this latter class that the expert speculator in the long run derives the main portion of his remuneration for the valuable services he renders. It would not be possible to bring about a condition of affairs under which expert speculators of great experience and knowledge carefully investigated all the circumstances bearing on prices, and then alone worked out the consequences and arrived at a scientifically determined market price."

It is a matter of real importance whether this view is correct; whether the existence of a class of foolish "punters" who lose money on the exchanges is essential to their maintenance, or whether the income of exchange dealers comes from another

source. To throw light on it, we will try to trace the course of typical price changes.

Suppose that the production and consumption of a commodity —say wheat—has been for some time normal, and that then an accident occurs to change abruptly the supply or the demand. First suppose a deficient harvest. The wheat farmers' expenses will be practically unaffected, but their receipts will be affected; if the demand for wheat is sufficiently urgent (technically if the demand has an elasticity less than unity), price will rise so much that their receipts in money will be greater than usual. Consumers will pay actually a greater total of money for a reduced supply; they will be driven to buy up existing stocks of wheat and also to buy substitutes, such as oats or maize, and they will, of course, have considerably less income to spend on all things other than cereals. A large transfer of income is made from the community in general to the wheat farmers. The world's crop being worth one thousand million pounds sterling, and the elasticity of demand say 0·6 (Lehfeldt, ECONOMIC JOURNAL, Vol. XXIV, p. 212), then if the crop be six per cent. short, price will rise ten per cent. and the total money paid for it will be four per cent., or £40,000,000 more than the average. A fluctuation of this magnitude is quite common.

If the demand is more elastic, the producers of the article do not gain so much and may lose, but the commodities dealt with on the organised produce exchanges are all of a kind for which the demand is somewhat urgent. Statistics are lacking as to the way in which the total value of the cotton, or the coffee harvest, for example, varies, but in any case there is the chance of a considerable transfer of wealth.

If the producers gain by a bad harvest, it is, of course, the class as a whole who do so. The harvest is not ordinarily uniform, so there will be some farmers whose crop is so bad as not to be compensated by the rise in price, while there are others who enjoy the advantage of the high prices although their crops are of full quantity.

In the opposite event, of a crop above the average, the effects are simply reversed; that is, the additional real wealth which Nature bestows on the farmers is, for the most part, transferred by them to the community at large. They may gain, but usually not so much as the community gains, and the more inelastic the demand, the less favourable is the position of farmers, who may even lose by the bounty of Nature.

Abrupt changes in demand are not so important, but they

occur sometimes. Thus, the outbreak of a war might create an exceptional demand for cotton, whether for soldiers' shirts or for explosives. In this case, the quantity of the crop being unaltered and the price raised, there is clearly an increase in the producers' income, and a reduction in that of consumers, who, since they have to spend so much on cotton, have to go short of something else.

If, now, we trace the product on its way from the farmers' fields through the hands of various merchants to the produce exchange, and thence to manufacturers, and, finally, to the public, we may describe all the parties on one side of the exchange as producers, all on the other as consumers. The exchange stands out as the principal organ for effecting the transfer of wealth between the two parties, which is indicated by the alteration in price. Exchange dealers are in a position to represent—temporarily, perhaps—either of the main parties to the transaction, and if they do not restrict themselves to a merely mechanical function, as brokers, some of the wealth transferred will naturally remain with them. Thus, when a deficient crop is ripening an exchange dealer, with his superior sources of information, and knowledge of the market, will associate himself with the producers, in the sense that, by buying futures he becomes responsible for a part of the enterprise of growing the crop. When an abundant harvest is just coming into sight, an astute dealer starts bearing the market; that is, by selling futures, he takes a share in the utilisation of the unusually abundant and cheap material which will shortly be forthcoming. Clearly, quite a small fraction of the transfer of wealth occasioned by natural conditions will suffice to remunerate the members of a produce exchange.

Manufacturers do actually hedge on their purchases with the object of keeping free from speculative losses and profits, and thus obtaining simply the appropriate remuneration of their work of manufacturing. We might imagine the same custom extended to all intermediaries: thus, there would be ample scope for dealers' profits over the transactions with the two classes of persons who necessarily have recourse to the exchange—the real sellers of produce and the real buyers; and if the amateur speculator disappeared altogether, produce exchanges would still earn the income necessary for their maintenance.

R. A. LEHFELDT

UNIVERSITY OF THE WITWATERSRAND,
JOHANNESBURG,
April 1923.

OBITUARY

Vilfredo Pareto

The death of Pareto will be felt as a heavy loss by the country with which he was connected by origin, by education, and as an ornament to its literature. The loss is also very great for the science which he enriched by valuable contributions. He was born July 15, 1848, in Paris, where his father, Marchese Pareto of Geneva, a follower of Mazzini, and exiled by King Charles Albert, resided. His mother was French. He came to Italy under the amnesty of 1858, studied engineering in Turin, and subsequently became manager of a factory in Florence. Meanwhile he prosecuted economic studies, and distinguished himself in his presentation of the arguments for Free Trade. He deserved to be the successor of Walras in the chair of Lausanne, to which he was appointed in 1893. His ardent genius found scope in applying to Political Economy that mathematical method in which Cournot, Walras, Jevons, Edgeworth had gathered splendid laurels. At the same time he pursued historical and statistical researches with no small success. His formula for the numerical distribution of incomes--the best page of his best work in my view—has been utilised in England and in the United States. Sir Josiah Stamp has told us that he owes to that formula the discovery of a gross omission of numerous contributors to the income-tax committed by his assistants at Somerset House. The best page of Pareto's life was written when he, the rigid follower of the liberal school, opened his house to Italian socialists persecuted by a reactionary government. Although his systematic opposition to democracy and to every movement for the enfranchisement of the human race prevented me from sympathising with his political views, I ever admired his learning, at once extensive and profound (qualities not often found together), his indefatigable energy and that resolute persistence in the development of his central ideas which is the secret of all the memorable victories in the battlefield of thought. We all associate ourselves with the sorrow which the learned world will feel on hearing of Pareto's sudden death.

A. Loria

CURRENT TOPICS

THE following have been elected to membership of the Royal Economic Society :—

Aiyar, C. R., M.B.E.
Aiyer, T. J. K.
Appleby, T. W.
Ashley, C. A.
Bacon, J.
Bath, A. E.
Beasley, C. G.
Bradshaw, T.
Brown, E. H.
Burrows, V. A.
Butterfield, W. T.
Carpmael, C.
Casey, D. P.
Coghlan, Col. D., O.B.E.
Collins, Sir Godfrey P., M.P.
Connor, L. R.
Crichton-Stuart, Lord, C., M.P.
Dade, E. B.
Daniel, W. J.
Dass, Dr. N.
Davidson, A. R.
Dieckhoff, Dr. H.
Edwards, A. J. C.
Edwards, Prof. G. W.
Egerton, W. le B.
Ejiri, M.
Garrett, C. W.
Gifford, J. L. K.
Gupta, K. Das.
Hammond, T. L.
Harrison, W. L.
Harle, T. G. A.
Hicks, A.
Innes, F. F.
Jones, W. H.
Jones, W. J.
Kammeyer, Dr. J. E.
Kantor, H. S.
Khan, M. A.
King, H. H.
Lee, H. S.
Loewenstein, G.
Luff, R. E. R.
Lyons, P. J.
Macaulay, T. B.
Mackintosh, Prof. W. A.
McLennan, J.
Mason, S. W.
Maudling, R. G.
Menken, J.
Menzler, F. A. A.
Millsaps, J. H.
Millward, G. D.
Mohan, Prof. S.
Montgomery, R. H.
Moorhouse, A.
Noda, T.
Noyes, C. Reinold.
O'Neill, J.
Oshima, H.
Paine, W. J.
Pandalai, K. C.
Pattimore, T. E.
Penson, J. H.
Peters, Prof. Iva L., Ph.D.
Pott, R. H.
Price, Francis M.
Pugh, Alfred E.
Raynes, H. E.
Reed, C.
Rex, A.
Robinson, L. Rex
Royle, R.
Sachs, A.
Savory, D. S.
Seay, G. J.
Shafi, Khan Sahib S. M.
Shah, N. J.
Shann, Prof. E.
Sharman, Prof. B. D.
Shumshair, Capt. Thir.
Silberling, N. J.
Smith, W. Miller.
Snipe, J.
Symmons, F. P.
Teare, H. E.
Thakur, B. T.
Thurston, O. F. A.
Trant, J. B.
Tudor-Hart, A. E.
Varma, P. M. L.
Vokins, G. A.
Watson, A. D.
Watson, J. Allen.
Webster, W.
Weeks, R. W.
Williams, E.
Wolman, Leo.
Woolston, P. L.
Zeuch, Prof. W. E.

The following have compounded for life membership :—

Bacon, James.	Price, Francis M.	Smith, W. Miller.
King, Horace H.	Pugh, Alfred E.	Teare, Herbert E.
Millward, Geoffrey D.		

The following have been elected to library membership :—Stockholms Hogskolas Socialvatenskapliga Institut; United States Tariff Commission, Washington; University College, Colombo.

THE issues of the ECONOMIC JOURNAL for September, 1914, December, 1915, March, 1917, March, 1918, June, 1918, March, 1919 and June, 1919, are now out of print. As a few additional copies are required for the purposes of completing sets, the Secretary of the Royal Economic Society would be much obliged if any Fellows who can spare their copies of these issues would return them to the Assistant Secretary, Mr. S. J. Buttress, 6, Humberstone Road, Cambridge. A payment of 5*s*. will be made for each copy so returned.

The Society has for disposal one complete set of the ECONOMIC JOURNAL (1891–1923), bound in cloth. Price on application to the Assistant Secretary, as above.

The following is the programme of the Economic Section during the forthcoming Liverpool Meeting of the British Association :—

Sept. 13.	10 a.m.	Mr. C. E. R. SHERRINGTON : A Comparison of the probable Economic Results of the United States Transportation Act 1920, and the British Railways Act 1921.
	11 a.m.	Joint Discussion with Section J (Psychology): The Interconnections between Economics and Psychology in Industry.
	Afternoon :	Visit to the Docks.
Sept. 14.	10 a.m.	Prof. H. CLAY. The Post-War Wages Problems.
	11 a.m.	Joint Discussion with Section M (Agriculture): The Economic Outlook for British Agriculture.
Sept. 17.	10 a.m.	Mr. H. D. HENDERSON : Stability in the Standard of Value.
	11 a.m.	Presidential Address by Sir W. H. BEVERIDGE, K.C.B., on Unemployment and Insurance.
	2.30 p.m.	Visit to Liverpool Cotton Association.
Sept. 18.	9.45 a.m.	Mr. P. SARGANT FLORENCE : Individual Variations in Efficiency and the Analysis of the Work-Curve.
	10.45 a.m.	Prof. F. Y. EDGEWORTH : Women's Wages in Relation to Economic Welfare.
	12.15 p.m.	Mr. J. A. BOWIE : The British Coal Agreement of 1921.
Sept. 19.	10 a.m.	Mr. J. J. CLARKE : Some Factors relating to the Re-housing of Slum-dwellers.

MR. A. M. CARR-SAUNDERS, author of *The Problem of Population* and a member of the Executive Committee of the Eugenic

Education Society, has been appointed to the Chair of Social Science in the University of Liverpool.

THE recent re-establishment of the Professorship of Finance at the University of Birmingham on a more adequate footing has been faciliated by a gift of £5000 from the great Japanese Commercial house of Mitsui. One of the heads of that house and certain of its officials have been students at Birmingham in the Faculty of Commerce. Mr. John George Smith, M.A., has been appointed to the Mitsui Chair. Mr. Smith brings to the study of Economics the advantage of proficiency in Mathematics. He took the highest honours in Mathematics at Trinity College, Dublin, and was for some time Lecturer in Mathematics in University College, Cardiff. But interest in Economics predominating, he turned to the teaching of that subject. He is the author of a recent work on *Organised Produce Markets*, reviewed in our March number.

IN the University of Tasmania steps have been taken during the past three years to establish the study of Economics and Commerce. In 1919, with the co-operation of the Government of the State and the business community, a Faculty of Commerce was organised and degrees in Commerce established. A Chair of Economics was created in 1920, and Mr. D. B. Copland of Canterbury College (N.Z.) was appointed to it. Under the will of the late Professor Pitt Cobbett of the University of Sydney, a bequest of £5000, made available to an Australian University for the study of industrial relations, has fallen to the University of Tasmania and a Pitt Cobbett Lectureship in Economics has been founded. Mr. J. B. Brigden, B.A. (Oxon.), has been appointed as the first lecturer under the bequest.

THE Newmarch Lectures at University College, London, will be delivered this year by Mr. Henry Higgs on "The Part of Statistics in Civic Education." The lectures will be given at 6.15 p.m. on six successive Wednesdays, beginning October 31. They are free to the public.

OUR Japanese correspondent writes as follows :—

The bicentenary of the birth of Adam Smith (June 5, 1923) was celebrated in Tokyo, at the instance of the "Keizaigaku-Kokyukai"—a society which has for its object the study and

advancement of economic science, and includes among its members almost all professors of economics of the universities in Tokyo and many Government officials and business men. The celebration, which was held in the precincts of the Imperial University of Tokyo, took the form of an exhibition, lectures and a dinner-party.

In the exhibition the *Wealth of Nations* was represented by the first edition of 1776, with the subsequent editions, and also by its translations. Among the latter was a Chinese translation, published in 1901. Of the Japanese translations there are now three; the earliest appeared in 1885, and the next in 1921-1922 in two volumes, and the third is expected shortly. In addition about 300 volumes, which once formed a part of Adam Smith's own library, were exhibited. These were bought by Prof. I. Nitobe in London in 1920 and presented to the Faculty of Economics of the Imperial University of Tokyo. There were also biographies of Adam Smith and many works mentioned by him in his writings. The medallions, engraved portraits and photographs of his birthplace and tomb attracted the attention of visitors to the number of more than 2000.

The lectures commenced at half-past one in the afternoon and continued till about six o'clock. The attendance was so large that not a single seat in the biggest hall of the University was left unoccupied. The lectures and their subjects were as follows :—

1. Opening Address. By Prof. N. Kanai, Tokyo Imperial University.
2. Adam Smith as a Source of Economic Thought. By Prof. M. Shiozawa, Waseda University.
3. Adam Smith and Mercantilism. By Prof. S. Takahashi, Keio University.
4. Adam Smith and Monetary Problems. By Prof. K. Yamasaki, Tokyo Imperial University.
5. Adam Smith as Champion for Welfare. By Prof. T. Fukuda, Tokyo Commercial University.

After the lectures a dinner-party was held, at which about one hundred were present, and speeches referring to Adam Smith were delivered by Prof. N. Kanai, Prof. E. Yahagi, Dean of the Faculty of Economics of the Imperial University of Tokyo, Baron Y. Sakatani, former Minister of Finance, Prof. T. Fukuda, Mr. J. Inoue, President of the Bank of Japan, Dr. E. Lederer, Professor of Heidelberg University and (at present) Professor

of the Imperial University of Tokyo, Mr. J. Soyeda and Mr. T. Shidachi, former Presidents of the Industrial Bank of Japan, and Mr. E. Ono, present President of the same Bank. Reference was made to a note, in the ECONOMIC JOURNAL of 1919, concerning the bronze tablet which was erected in 1919 to mark the birthplace of Adam Smith in Kirkcaldy, coupled with an expression of the satisfaction of the many Japanese who have visited the place in the past as well as of those who are desirous to do so in the future, testifying to the deep respect in which the great economist is held in Japan.

RECENT PERIODICALS AND NEW BOOKS

Journal of the Royal Statistical Society.

MAY, 1923. *International Statistical Comparisons.* A. W. FLUX. A prolusion of matters which will be discussed at the meeting of the International Statistical Institute next October. *Trade Forecasting and Prices.* E. C. SNOW. *On the Methods of Comparing the Mortalities of two or more Communities and the Standardisation of Death Rates.* H. H. WOFLENDEN. *The Correction of Correlation Coefficients.* H. G. STEAD.

Economica.

JUNE, 1923. *Adam Smith.* DR. J. BONAR, PROF. E. CANNAN. The centenary of Adam Smith's birth evoked many wise and some witty reflections. *Reform of the House of Lords.* H. B. LEES-SMITH, M.P. *The Effect on Trade of Funding the Floating Debt.* A. R. BURNS. *The Problem of Chinese Currency.* L. L. TANG. The confused state of the currency is described, and a plan for its improvement is suggested. *A New Contribution to the Population Problem.* DR. H. DALTON and M. GINSBERG. Referring to Mr. Carr-Saunders' *Population Problem.* The controversy on the tests of "goodness of fit" is kept up by MR. R. A. FISHER.

The Quarterly Review.

JULY, 1923. *Housing.* RIGHT HON. SIR A. BOSCAWEN. A sketch of housing policy from the first Public Health Act, 1848, down to 1910, when first after the "People's Budget" shortage of houses set in, is followed by a discussion of present conditions and plans for their improvement. *Germany's Capacity to Pay* (not signed). Through the disappearance of National and State debts and the reduction of military expenditure Germany's available surplus is much greater than before the War. *The Dole and Demoralisation.* GEOFFREY DRAGE. A vigorous denunciation of the increased expenditure on Public Assistance, amounting to some £400,000,000 per annum.

Current Economics (London).

JANUARY, 1923. Vol. I., No. I. The new monthly will survey, as through a telescope, the world as a single indivisible economic unit, leaving to contemporary Journals the microscopic method apt to magnify the part and minimise the whole.

The Irish Economist (Dublin).

JULY, 1923. *Matters of Moment.* PAUL GREGAN. Irish dealers might compete with the world successfully for the custom of Great Britain, if they would abandon malpractices—such as the

deficiency of weight and excess of moisture in their butter—" if we will throw into the fight some of the energy and ability and pluck which we have for some time past employed against our railways, aqueducts, police barracks and other public structures." *Consumers' Co-operation in the United States.* CEDRIC LONG. *The Zeiss Works: What a Factory should be.* M. L. DARLING. A study on Abbé's work. *Czecho-Slovakian Co-operation.* F. VÁIRA. *The Future of Agriculture.* The writer, who in a former number praised the scheme of C. H. Douglas, now recommends for immediate use a system of control, " which, though incomplete, is at least practicable." *Co-operation and Psychology.* R. LYNCH-FOX.

Indian Journal of Economics (University of Allahabad).

The Editor announces that notwithstanding the loss of valuable support caused by the departure of Professor H. Stanley Jevons from the University of Allahabad, the Journal will continue to be issued by the Department of Economics. It will be published three times during each academic year, on the first of October, January and April respectively. A special feature of the next issue, October, 1923, will be a Directory of Economists in India. The annual subscription will be rupees 9.

L'Egypte Contemporaine (Cairo).

MAY, 1923. *Notes on the Estimate of the National Income of Egypt for 1921–1922.* J. BAXTER. (Criticises the estimate of 301 million Egyptian pounds framed by Dr. I. G. Lévi a year earlier, and concludes that the total should be reduced by at least 50 per cent.) *Evaluation du revenu national de l'Egypte. Réponse à M. Baxter.* Dr. I. G. LÉVI. (Maintains his original estimate.) A lively controversy on facts and methods between the Assistant Financial Secretary and the Controller of the Department of Statistics and of the Census.

International Labour Review (Geneva).

JUNE, *Polish Labour Legislation.* H. BAUMGART. *Measures to Combat Unemployment in the Netherlands.* J. GERRITSZ. The measures described have alleviated, but will not extinguish, unemployment, as the country has reached the point of saturation in respect of population.

JULY, 1923. *Labour and Industry in China.* J. B. TAYLER and W. T. ZUNG. Labour conditions are much below Western standards; women and children are extensively employed; hours are long, and there is no Sunday. The standard of living is low, but wages are often lower. *Women in the German Trade Union Movement.* GERTRUDE HANNA. Women mostly belong to the same unions as men, forming some twenty per cent. of the membership. They mostly receive about two-thirds of men's wages.

International Review of Agricultural Economics (Rome).

JANUARY–MARCH, 1923. The first number of a new series published under the auspices of the International Institute of Agriculture which was established in 1905.

Agrarian Reform in Eastern Europe. H. M. CONACHER. *Share Tenacy in Spain.* INSTITUTE OF SOCIAL REFORM. *Farm Household Management Instruction in Belgium.* M. BEAUFRETON. *Principal Types of Co-operative Society in Italy.* G. COSTANZO. *Co-operation in the Argentine Republic.* D. BÓREA.

Quarterly Journal of Economics (Cambridge, Mass.).

MAY, 1923. *Soil Fertility, Soil Exhaustion, and their Historical Significance.* A. P. USHER. Science affords no basis for the "static" conception that the yield of crops is decreased by the depletion of minerals. *International Rivalry and Free Trade Origins.* L. B. PACKARD. On the lines of Sir William Ashley's article on "The Tory Origin of Free Trade Policy" (July, 1897), it is shown that party spirit and national enmity counted for much in the rise of Free Trade. *The American Wool Manufacturers.* ARTHUR H. COLE. The combine are said to be a neglected chapter in the history of combinations. *On the Relation between Price Cost and Profit.* KEMPER SIMPSON. *Danish Agriculture.* JENS WARMING. Co-operation and the co-operative spirit have availed greatly.

The American Economic Review (Cambridge Mass.).

JUNE, 1923. *Economics and Profits of Goodwill.* C. J. FOREMAN. *Suggestions for Determining a Living Wage.* DOROTHEA D. KITTREDGE. *The Circuit Velocity of Money.* HUDSON B. HASTINGS. *The Course in Elementary Economics.* F. FETTER and others. The opinions of experts on the expediency of imparting a little learning. *Effect of Open Price Association Activities.* MILTON N. NELSON. *The Stabilization of Gold.* CARL SNYDER. It is proposed to make notes, redeemable in gold, the sole legal tender; the total issue of this currency to be governed by an index-number of prices, so as to keep the level of prices constant.

Journal of Political Economy (Chicago).

JUNE, 1923. *Loyal Legion of Loggers and Lumbermen.* E. B. MITTELMAN. An account of the not very decisive experiment in industrial relations made by organisation of employers and employees in the North-West lumber industry. *Some Books on Fundamentals.* F. H. KNIGHT. Prof. Pigou's *Economics of Welfare* and Mr. H. D. Henderson's *Supply and Demand* are among the important books ably appreciated. *Crown Lands in Feudal Germany.* J. W. THOMPSON. *The International Investment Market.* H. D. LASSWELL. *Psychological Tests for Business.* A. W. KORNHAUSER. Suggestions for testing and using various tests of business capacity.

Political Science Quarterly (New York).

JUNE, 1923. *The Unemployed Problem.* SEEBOHM ROWNTREE. Various remedies are recommended for adoption, or at least examination. *The Living Wage and National Income.* S. A. LEWISOHN. The "reasonable needs" of the workers are relative to the magnitude of the national income; which could probably be increased by a sanely liberal treatment of the workers.

Journal des Economistes (Paris).

MAY, 1923. *Le Budget britannique*, 1923–4. W. M. J. WILLIAMS. *Chronique de l'inflation*. Prof. Cassel's plan for devaluing currencies is combated.

JUNE. *L'impôt sur le revenu*. YVES GUYOT. *La Deflation en Tchécoslovaque*. B. DUSEK. The deflation is described as on the whole a success, though attended with some temporary embarrassment.

JULY. *Le Budget de* 1923. YVES GUYOT. *Les loyers dits "modérés."* P. GODIN. *Deuxième emprunt* 1923 *du Crédit national*. A. BARRIOL and I. BROCHY.

Revue d'Economie Politique (Paris).

MARCH–APRIL, 1923. *La France économique en* 1922. There is tried in this number the experiment of presenting in one picture the various features of French economic life—financial, commercial, industrial and colonial. Under these headings are sections—fifteen in all—each treated by a separate well-known writer. *Reparations*, for instance, is fully discussed by M. Charles Rist, who points out the contradiction between a rigorously protectionist system and the hope of obtaining merchandise gratuitously.

Revue de L'Institut de Sociologie (Brussels).

MAY, 1923. *Un parallèle historique*. W. DEONNA. An instructive and alarming parallel between the Peloponnesian War which ruined Ancient Greece and the recent World War. Athenian imperialism was the prototype of German aggression. *La natalité et la mortalité chez les demi-sauvages*. P. DESCAMPS. Curious facts bearing on the theory of population. *L'évolution du régime bancaire en Belgique*. B. S. CHLEPNER. The history of Belgian banking is continued down to 1838.

Jahrbücher für Nationaloekonomie (Jena).

MAY, 1923. *Wertbeständige Kapitalanlagen*. KARL MUHS. A scheme intended to neutralise some of the bad effects which the depreciation of money has produced by rendering the value of plant and securities unstable. *Die Pacht nach gleitender Skala*. H. SCHACK. A sliding scale by which rent is to be measured in a stable unit, so as to correspond with "objective rent ability."

JUNE. *Die Grundformen der Steuerabwehr*. F. K. MANN. Evasion of taxes defined so as not to imply legal wrongdoing presents several types.

Weltwirtschaftliches Archiv (Jena).

APRIL, 1923. *Deflation, devaluation und Stabilisierung*. Prof. J. S. LEWINSKI. Deflation of which the object is to raise the value of the depreciated paper-money is contrasted with "devaluation" which aims at maintaining the existing value of the paper. *Sir Josiah Child*. DR. SVEN HELANDER. *Geldreform in Deutschland*. H. MUELLER.

There are also studies on questions relating to German harbours.

JULY. *Internationale Kapitalbildung nach dem Kriege*. DR. FRANZ EULENBERG. Some theoretical considerations are followed by

particulars relating to the principal countries, showing that accumulation in 1920–22 is about half what is was in 1911–13. *Die Wettbewerbslage der deutschen Welthäfen.* PROF. E. v. BECKERATH. *The English Trade-Board System.* A. W. SHIMMAS. *Typisierung als Wirtschaft Organisation.* DR. ERNST SCHUSTER. A very wide concept including standardization and other kinds of unification is considered.

Archiv fur Sozialwissenshaft und Sozialpolitik (Tübingen).

BAND 50, HEFT 3. *Der Imperialismus der Vereinigten Staaten.* A. SALZ. *Volkswirtschaftliche Theorie der Personenfahrpreise.* OSKAR ENGLÄNDER. *Riesenzollgebiete nach dem Weltkrieg.* SIEGMUND SCHILLER. There is also an article of great literary interest on the repercussion of the economic and social *milieu* on recent Italian literature by R. MICHELS.

Giornale degli Economisti (Rome).

JUNE. *Il commercio estero dell'Italie durante la guerra.* V. DEUTAMORO *Della dinamica patrimoniale nella presente economia capitalista.* G. MAJORANA. (Referring to the work of A. De Stephani on inheritance.)

JULY. *I porti dell' Italia meridionale.* EIPICARMO CORBINO.

La Riforma Sociale (Turin).

MAY–JUNE, 1923. *Per la riduzione delle Tariffe doganali.* IL COMITATO DEL GRUPPO LIBERO-SCAMBISTA ITALIANO. A powerful petition to Parliament deprecating the aggravation of Protectionism unconstitutionally introduced in 1921. The immediate abolition of protective duties is not demanded; their possible uses are admitted; but these, say the committee, were sufficiently secured by the old tariff. Among the signatures are names of the most distinguished Italian Professors, De Viti di Marco, Jannacone, Loria, Prato and other names well known throughout Europe. "*Marshall*" *Sulla Circulazione.* ACHILLE LORIA. High encomium of Dr. Marshall's *Money, Credit and Commerce* is tempered with some criticism. It is objected that the reasoning at p. 162 of the book would not hold good in certain cases, [cases, abstracted in that context as not occurring in "ordinary trade," are treated among exceptions in an Appendix.] *Note critiche di Statistica Economica.* P. JANNACONE. An important study on Index-numbers, specially referring to Professor Irving Fisher's recent volume.

Revista Nacional de Economia (Madrid).

VOL. XIV., No. 41. *La Banca Catalana y el Nacionalismo.* J. N. RODÉS. *Estudios de Economia Prehistórica.* H. OBERMALER Y P. DE BARRADAS. A learned study on origins. *Consideraciones sobre la Conferencia de Paris.* J. DE FELS.

No. 42. *La Situatión financiera de España.* E. RIU. The editor presents a favourable view of Spanish currency and finance (*la vida económica en Asturias*). L. A. ARGÜELLES. Interesting details about different branches of agriculture, and reflections on the value of human culture.

NEW BOOKS

English.

BLAKE (HUBERT). Currency and Credit. Before and since 1914. London: Wilson. 1923. Pp. 91.

CONSETT (REAR-ADMIRAL M. W. W.). The Triumph of Unarmed Forces, 1914–1918. London: Williams and Norgate. 1923. Pp. 341.

DAS (R. KANTA). Factory Labour in India. Berlin and Leipsic: Gruyler. 1923. Pp. 216.

[The writer is Lecturer in Economics, New York University.]

DAS (R. KANTA). Hindustani Workers on the Pacific Coast. Berlin and Leipsic: Gruyler. 1923. Pp. 126.

[An interesting study of the work and life and grievances of the Hindustani immigrants into the United States and Canada; based on an inquiry made by the writer for the Department of Labour, United States.]

EDIE (LIONEL D.). Business Cycles and Unemployment: Report and Recommendations of a Committee of the Conference on Unemployment. With a Foreword by HERBERT HOOVER. London: McGraw Publishing Co. 1923. Pp. 405.

ENOCK (A. GUY). The Problem of Armaments. London: Macmillan.

FINER (HERMAN). Representative Government and a Parliament of Industry. London: Allen and Unwin. 1923. Pp. 273.

[It is questioned whether our existing political institutions are adapted to solve peaceably the grave economic and social problems of our time. Other institutions are suggested by the experience of the German Federal Economic Council.]

FLUX (A. W.). Economic Principles. London: Methuen. 1923. Pp. 305.

[In this new edition of a well-known treatise, published nearly twenty years ago, the treatment of money, international trade and the foreign exchanges has been entirely recast.]

GALTON (F. D.). Select Documents illustrating the History of Trade Unionism. 1. The Tailoring Trade. London: King. 1923. Pp. 242.

[A reprint of a well-known work.]

GHOSHAL (PROF. U.). A History of Hindu Political Theories. Oxford: University Press. 1923. Pp. 296.

HIRST (FRANCIS W.). Trade, Expenditure, Taxation and Money: being lectures delivered in South Africa in 1923 under the auspices of the Council of Education, Witwatersrand. Council of Education, Johannesburg. Pp. 70. 3*s*., cloth.

LEHFELDT (R. H.). Restoration of the World's Currencies. London: King. 1923. Pp. 146.

NIPPOLD (OTFRIED). The Development of International Law after the World War. Translated from the German by AMOS S. HERSHEY. Oxford: Clarendon Press. 1923. Pp. 241.

O'BRIEN (GEORGE). An Essay on the Economic Effects of the Reformation. London: Burns and Oates. 1923. Pp. 194.

VAKIL (C. N.). Our Fiscal Policy (second edition, revised and enlarged). Bombay: Taraporevala. 1923. Pp. 157.

WOLFE (HUMBERT). Labour Supply and Legislation (Economic and social history of the World War). Oxford: University Press. 1923. Pp. 422.

[An account of the way in which food and munitions for some five million men withdrawn from labour were provided by the remaining labour force of the United Kingdom. The well-arranged narrative is supported by numerous *pièces justificatifs.*]

American.

BERGENGREN (ROY F.). Co-operative Banking. New York: Macmillan Co. 1923. Pp. 398.

[By "credit union" banking service is brought to the masses, thrift is promoted, usury is eliminated and other advantages are secured.]

BERRIDGE (W. A.). Cycles of Unemployment in the United States. Boston: Houghton. 1923. Pp. 88.

BOGARDUS (EMORY S.). Essentials of Americanisation. Third revised edition. Los Angeles: Miller. 1923. Pp. 442.

BRITISH ECONOMICS. Some aspects of recent British Economics. Britain—Economic Outlook, by J. A. Hobson. British Aspects of Unemployment, by D. H. Macgregor. English Agriculture during the War and since the Armistice, by Reginald Lennard. Chicago: University Press. Pp. 134.

[A collection of articles recently published in the *Journal of Political Economy.*]

BRODERICK (JOHN T.). Pulling Together. Schenectady (U.S.A.). Hobson and Adee. 1922. Pp. 167.

[A plan for securing better relations between capital and labour.]

Carnegie Endowment for International Peace. Official German documents relating to the World War. Translated under the Supervision of the Carnegie Endowment. New York: Oxford University Press. 1923. 2 vols.

DAY (E. EZRA) and DAVIS (J. STANCLIFFE). Questions on the Principles of Economics. New York: Macmillan Co. 1922. Pp. 124.

[A praxis arranged primarily for use with Professor Taussig's *Principles of Economics.*]

FAIRCHILD (F. R.). Essentials of Economics. New York: American Book Co. Pp. 543.

FOSTER (W. TRUFANT) and CATCHINGS (WADDILL). Boston and New York: Houghton Co. 1923. Pp. 409.

KELLEY (TRUMAN L., PH.D.). Statistical Method. New York: Macmillan Company. Pp. 300. 18*s*.

LINK (HENRY C.). Education and Industry. New York: Macmillan Co. 1923. Pp. 265.

[By the author of "Employment Psychology."]

NELSON (MILTON). Open Price Associations (University of Illinois Studies). Urbane: University. 1922. Pp. 240.

PERLMAN (SELIG). A History of Trade Unionism in the United States. New York: Macmillan Co. 1922. Pp. 306.

VIALLATE (PROF. ACHILLE). Economic Imperialism and International Relations during the last Fifty Years. New York: Macmillan Co. 1923. Pp. 180.

French.

AUCLERT (HUBERTINE). Les femmes au Gouvernail. Paris: Giard. 1923. Pp. 407.

[The work of a noted French "Suffragette."]

BOSSIÈRE (RENÉ E.). La crise Mondiale. Étude de sa cause et d'un projet de solution. Paris: Rousseau. 1823. Pp. 23.

BOUSQUET (G. H.). L'évolution Sociale aux Pays-bas (1914–22). Paris: 1923. Pp. 142.

[A history of momentous constitutional changes.]

EINZIG (PAUL). Le mouvement des prix en France depuis 1914. Paris: Rousseau. 1923. Pp. 102.

GARRIGON-LAGRANGE (A.). Le problème des Réparations. La technique des Règlements. Paris: Vie Universitaire. 1923. Pp. 254.

MAUGER (J. B.). Recherches sur les relations économiques entre La France et La Hollande pendant la Révolution Française. Paris: 1923. Pp. 170.

RIGNANO (EUGENIO). Pour une réforme socialiste du droit successoral (Bibliothèque Socialiste). Paris: Rieder. Pp. 119.

[A translation, with some variations, of the author's *Per una riforma Socialista del diritto successorio.*]

SÉE (HENRI). Les idées politiques en France au XVII. Siècle. Paris: Giard. 1923. Pp. 371.

YOVANOVICH (D.). Le rendement optimum du travail ouvrier. Paris: Payot. 1923. Pp. 490.

YOVANOVITCH-FOGLER (D. ALEXANDRE). Les théories monétaire de l'Économiste Cassel. Paris: Jouve. 1923. Pp. 151.

German.

FEILEN (D. J. F.). Die Umlaufs-geschwindigkeit des Geldes (Sozialwissenschaftliche Forschungen Abteilung I., Heft 1). Berlin and Leipsic: Gruyler. 1923. Pp. 143.

HELANDER (D. SVEN). Die Ausgangspunkte der Wirtschaftswissenschaft. Jena: Fischer. 1923. Pp. 122.

MENGER (CARL). Grundsätze der Volkswirtschaftslehre. Vienna: Hölder-Pichler. 1923. Pp. 335.

[A revised edition of the epoch-making work which was published some fifty years ago. The revision has been carried out by the author's son with the aid of a manuscript left by the author.]

RICHTER (DR. LEITZ). Arbeitsrecht als Rechtsbegriff. Leipsic: Scholl. 1923. Pp. 26.

[The third issue of the writings of the Institute for "Arbeitsrecht"; of which the author is an official.]

Italian.

FANNO (PROF. MARCO). Inflazione Monetario e Corso der Cambi. Città di Castello: Società "Leonardo da Vinci." 1923. Pp. 138.

[Reprinted from the *Giornale degli Economisti.*]

GIULIO (ALESSIO). La teoria del Cassel e la stabilizzazione dei Cambi. Venice: Ferrari. 1922. Pp. 95.

NITTI (F.). Scienza delle Finanze, Edizione V. Naples: Simonazy.

OLIVETTI (G.). Le riparazioni e la Ruhr. Rome: Athenæum.

PAPI (G. U.). Il lavoratore alla gestione dell' impresa. Milan: Vallardi.

PAPI (G. U.). Prestiti esteri e commercio internazionale in regime di carta moneta. Rome: Signorelli.

REPACI (F. A.). La questione doganale. Turin: La Riforma Sociale. 1923. Pp. 87.

[Reprinted from the *Riforma*, with a preface by Professor Einaudi calling attention to the witness borne by business men to the deleterious effects of Italian Protection.]

Swedish.

ÖSTERGEN (AUG.). Vägen till Ekonomisk hälsa. Stockholm: Fritze. Pp. 247.

THE ECONOMIC JOURNAL

DECEMBER, 1923

POPULATION AND UNEMPLOYMENT [1]

THE impression that the civilised world is already threatened with over-population is very common to-day. Many, perhaps most, educated people are troubled by fear that the limits of population, probably in Europe and certainly in this country, have been reached, and that a reduction in the rate of increase is an urgent necessity. Most, if they were asked to give reasons for their fear, would refer to one or both of two reasons: they would point to the enormous volume of unemployment in this country; they would say that economic science, at least at Cambridge, had already pronounced its verdict. I propose to begin by raising some doubts as to the validity of each of these arguments.

Unemployment No Proof of Over-Population.

The volume of unemployment in Britain is undoubtedly serious, and almost certainly unparalleled in past history. Those who see, as we now do, more than a million wage-earners whom our industry for years together is unable to absorb in productive employment may be excused if they draw the inference that there are too many wage-earners in the country. The inference, though natural, is unjustified. Unemployment in Britain can in any case prove nothing about the world as a whole. History shows that it does not prove over-population even in Britain.

During the last half of the nineteenth century, the industry of the United Kingdom was finding room for a rapidly increasing number of wage-earners with an admittedly rising standard of production and comfort. Through the whole of that period there was unemployment in the country. The percentage of trade unionists out of work never fell to zero; in no year since

[1] Presidential Address to Section F of the British Association, Liverpool, 1923.

1874 was it less than two; at more than one crisis it reached a height comparable if not equal to that which we have just experienced. During 1922 this percentage has averaged fifteen; but it averaged over eleven in 1879 and over ten in 1886. These figures are not on an identical basis and are therefore not absolutely comparable. Taken for one year only, they understate the relatively greater seriousness of our recent experience, since the unemployment percentage was high through a large part of 1921 as well as in 1922, and still continues high. But the difference is one of degree rather than of kind. The peril of inferring over-population from unemployment is conclusively shown.

The experience of 1879 was up to then unparalleled; probably it was as much worse than anything previously recorded as the experience of 1922 appears worse than that of 1879. The experience of 1879, however, the record year of unemployment, heralded, not over-population and the downfall of British industry, but a period of expansion and prosperity which itself reached, if it did not pass, all previous records. "Real wages," which had risen thirty per cent. in the twenty years to 1880, rose even more rapidly in the next twenty years to 1900. Anyone who in 1879, looking at the half or three-quarter million unemployed, had argued that the existing population of the United Kingdom (then about thirty-four millions) was all that the country could support without lowering its standards, would have been lamentably discredited at once. Ten years later he would have found a population nearly three millions more, enjoying a real income per head that was a fifth greater, with the unemployment percentage reduced to two. Ten years later still the population had grown further in size and in prosperity; those trades had grown most rapidly in which there had been and continued to be the largest percentages of unemployment.

The problems of unemployment and of over-population are distinct; they are two problems, not one. Severe unemployment has occurred in the past without over-population, as a function of the organisation and methods of industry, not of its size. On the other hand, it is very doubtful if excessive growth of population has ever shown itself or would naturally show itself by causing unemployment. A more probable effect would be pressure to work more than before in order to obtain the same comforts; a fall of real wages per hour, by increase either of working hours or of prices.

The same dependence of unemployment on the organisation and methods of industry, rather than on its size, appears if we

look, not backwards in time, but round us in space. It has been pointed out by Professor Cannan that one of the few groups of economists who from our post-war sufferings can at least obtain the high intellectual satisfaction of saying "I told you so," is that which maintains that changes in the purchasing power of money are the most potent causes of the fluctuations in prosperity known as cycles of trade or booms and depressions. "In the pre-war period booms and depressions swept over the whole Western world at once and left their causes obscure. In 1922 we have been treated to a sharp contrast between two groups of countries, one group having boom and full employment, the other depression and unemployment, the difference being quite clearly due to the first group having continued the process of currency inflation, the other group having dropped it." To bring this generalisation down to particular instances, we see in Central Europe a nation which assuredly should be suffering from over-population if any nation is; Germany, defeated in war, has been compressed within narrower limits, has lost its shipping and foreign investments, its outlets for emigration and trade, and now by high birth-rates is repairing with exceptional speed the human losses of the war. Germany may or may not be suffering from over-population. She certainly has not suffered from unemployment; till the occupation of the Ruhr, she had a boom stimulated by inflation of the currency. We see, on the other hand, Britain, victorious in war, with expanded territories and the world open to her, pursuing a different, no doubt a better, currency policy and experiencing unexampled unemployment. To argue uncritically from unemployment to over-population is to ignore the elements of both problems.[1]

Europe before the War.

Let us turn to the second argument, the argument from authority and, above all, from the authority of Mr. J. M. Keynes. No economic writing in our generation has obtained so wide a fame as that of Mr. Keynes on the *Economic Consequences of Peace*. None, on its merits, has deserved more. With its main argument neither I nor, I think, posterity will wish to quarrel. There are, however, in that book certain phrases about population,

[1] In the United States, which no one suspects of over-population, "there seems good ground for believing that in actual diminution of employment, the depression of 1921 was almost twice as acute as that of 1908" (Berridge: *Cycles of Unemployment*, p. 52). 1908 was one of the worst depressions hitherto experienced in America.

TABLE I.

Agricultural and other Production at Certain Epochs.

	EUROPE.					COUNTRIES SETTLED FROM EUROPE.					EUROPE AND ITS SETTLEMENTS.		
	1880	1890	1900	1910	1920	1880	1890	1900	1910	1920	1890	1900	1910
Population (thousands)	310,749	340,297	374,667	427,627	423,000	—	75,596	91,451	111,829	131,432	415,893	466,118	539,456
Total Production (1000 quarters).													
Wheat	136,067	152,006	192,869	225,356	—	—	75,033	103,295	138,982	178,049	227,039	296,164	364,338
Rye	130,741	145,759	173,185	194,195	—	—	3,333	3,384	4,476	8,818	149,092	176,569	198,671
Barley	70,254	78,343	89,427	111,665	—	—	11,113	15,412	27,601	26,401	89,456	104,839	139,266
Maize	40,542	48,683	53,797	65,435	—	—	234,465	270,889	360,996	396,868	283,148	324,686	426,431
Four Crops	377,604	424,791	509,278	596,651	—	—	323,944	392,980	532,055	609,776	748,735	902,258	1,128,706
Area under Crop (1000 acres)													
Wheat	89,891	95,165	109,394	125,448	—	—	49,977	65,500	80,717	107,142	145,142	174,894	206,165
Rye	100,301	99,122	101,508	102,508	—	—	2,201	1,802	2,291	5,565	101,323	103,310	104,789
Barley	34,953	38,449	41,163	49,458	—	—	4,104	4,957	9,280	10,769	42,553	46,120	58,738
Maize	19,612	22,372	24,435	26,026	—	—	77,662	91,584	116,685	111,878	100,034	116,019	142,711
Four Crops	244,757	255,108	276,500	303,440	—	—	133,944	163,843	208,973	235,354	389,052	440,343	512,413
Yield per Acre (bushels)													
Wheat	12·11	12·78	14·10	14·37	—	—	12·00	12·62	13·78	13·30	12·51	13·55	14·14
Rye	10·42	11·76	13·65	15·16	—	—	12·11	15·04	15·63	12·87	11·77	13·67	15·17
Barley	16·08	16·30	17·38	18·06	—	—	21·68	24·86	23·79	19·34	16·83	18·19	18·83
Maize	16·54	17·41	17·62	20·11	—	—	24·15	23·66	24·75	28·38	22·64	22·39	23·90
Four Crops	12·34	13·32	14·74	15·73	—	—	19·50	19·19	20·32	20·73	15·40	16·39	17·62
Yield per Head (bushels)													
Wheat	3·50	3·57	4·12	4·22	—	—	7·94	9·04	9·94	10·84	4·37	5·09	5·40
Rye	3·36	3·43	3·70	3·63	—	—	0·35	0·30	0·32	0·54	2·87	3·03	2·94
Barley	1·81	1·84	1·91	2·09	—	—	1·18	1·35	1·97	1·58	1·72	1·79	2·06
Maize	1·04	1·14	1·14	1·22	—	—	24·81	23·70	25·82	24·16	5·45	5·58	6·33
Four Crops	9·71	9·98	10·87	11·16	—	—	34·28	34·38	38·06	37·11	14·41	15·48	16·73
Production per Head (cwt.)													
Coal	15·12	18·17	21·67	25·05	—	—	39·61	54·96	81·01	—	22·07	28·21	36·27
Iron Ore	1·93	2·05	2·72	3·43	—	—	3·98	6·09	8·68	—	2·40	3·36	4·53
Crude Steel	—	·45	[illegible]	1·43	—	—	1·13	2·46	4·26	—	·58	1·22	2·00

Notes to Table I.

The figures of acreage and corn production at the successive epochs are averages for the six years 1878-1883, 1888-1893, 1898-1903, 1908–1913, and for the two years 1920–21, or for as many of those years as were available in each case.

The populations are those given in censuses or official estimates relating to dates within six months of January 1, 1881, 1891, 1901, 1911 and 1921, or are estimated for about those dates (being the centre of the six years taken for averaging) where no such census was available.

The figures for "Europe" relate to Austria, Belgium, Bulgaria, Denmark, France, Germany, Holland, Hungary, Italy, Roumania, Russia (with Poland), Serbia, Spain, Sweden, and the United Kingdom, containing between them 94 per cent. of the total population of Europe in 1910. Norway, Finland, Portugal, Switzerland, Greece, Turkey, Bosnia and Herzegovina and a few minor states alone are excluded. The figures for "Countries settled from Europe" relate to Canada, United States of America, Argentina, Uruguay, Australia, and New Zealand. At the epochs 1900 and 1910 actual returns are available for all those countries; at the earlier epochs the yields or acreages or both have had to be interpolated for a few countries (of which Spain and Roumania are the most important).

The yields, acreages, and populations for 1920–21 are based on the statistics given in the Year Book for 1921 of the International Agricultural Institute. The yields and acreages for earlier years are based on the statistics in the annual Agricultural Returns published by the English Board of Agriculture and Fisheries. The populations for these earlier years in Europe are based on the statistics compiled by the International Statistical Institute) *État de la Population*, published 1916).

Weights have been converted into quarters on the basis of 480 lbs. to the quarter of wheat, rye, and maize, and 448 lbs. to the quarter of barley.

The figures for coal, iron ore and steel production are five or three year averages centering on the years 1880, 1890, 1900, 1910. For Europe the production is actually that of Austria, Hungary, Belgium, France, Germany, Italy (not steel), Russia (not iron ore), Spain (not steel), Sweden, and United Kingdom. For European settlements the United States contribute all the steel and all but a little of the iron ore; for coal Canada, Australia and New Zealand are included. The production "per head" is based on the same populations as those used for agriculture in Europe and its settlements respectively.

The population figures, and by consequence the yield per head, differ slightly from those given in my paper as printed for the British Association. The change results from closer investigation of the Russian statistics. As now printed the Russian figures both of population and of agricultural production exclude Northern Caucasia up to 1901, and include Northern Caucasia from 1902 onwards; for each year the same area is covered for both purposes. The change in the table is so small as to involve not a single alteration in the text of my paper commenting on the table.

used incidentally, almost casually, which have none of the weight of the main argument. To these almost more than to anything else is to be attributed the general dread of over-population to-day; these call for examination.

In the second chapter of his book, Mr. Keynes paints a picture of Europe as an economic Eldorado, now devastated beyond repair by war and the peace, but even before the war threatened by internal factors of instability—" the instability of an excessive population dependent for its livelihood on a complicated and artificial organisation, the psychological instability of the labouring and capitalist classes and the instability of Europe's claim, coupled with the completeness of her dependence on the food supplies of the New World." In naming the first of these factors of instability Mr. Keynes already passes the judgment that Europe's population was " excessive." Elsewhere in the same chapter he is more specific : " Up to about 1900 a unit of labour applied to industry yielded year by year a purchasing power over an increasing quantity of food. It is possible that about the year 1900 this process began to be reversed, and a diminishing yield of Nature to man's effort was beginning to reassert itself. But the tendency of cereals to rise in real cost was balanced by other improvements." A few pages further on he passes from possibilities to positive assertion; in the last years before the War " the tendency towards stringency was showing itself . . . in a steady increase of real cost . . . the law of diminishing returns was at last reasserting itself, and was making it necessary year by year for Europe to offer a greater quantity of other commodities to obtain the same amount of bread." In the seventh chapter is a wider and yet more explicit assertion of " the increase in the real cost of food and the diminishing response of Nature to any further increase in the population of the world." And so to Malthus. " Before the eighteenth century mankind entertained no false hopes. To lay the illusions which grew popular at that age's latter end, Malthus disclosed a Devil. For half a century all serious economical writings held that Devil in clear prospect. For the next half-century he was chained up and out of sight. Now perhaps we have loosed him again."

These quotations set the problem. The question is not indeed whether Malthus' Devil is loose again. Mr. Keynes has seen to that; he stalks at large through our lecture-rooms and magazines and debating societies. The question is rather whether Mr. Keynes was right to loose this Devil now upon the public. Was there in Europe or in the world as a whole before the War clear

evidence, first, of "a diminishing yield of Nature to man's effort"; and, second, of a "rising real cost" of corn?

The Course of Agricultural Production.

The answer to the first question is given by the table of "Agricultural and other Production at certain Epochs" which is printed above. The first section of this table shows at four successive epochs—1880, 1890, 1900, 1910—the total yield and acreage of corn and the yield per acre and per head of population in Europe as a whole (including Britain), with corresponding figures for coal, iron ore, and steel. The second section gives corresponding facts for the principal countries settled from Europe—Australia, New Zealand, the United States, Canada, and parts of South America. The third section covers Europe and its settlements together, practically the whole of the "white man's countries." The figures for each epoch represent an average of years, generally six, centering about the end of the year named. The records are not absolutely complete; one or two small European countries have been left out altogether; one or two gaps at the earlier epochs have to be filled by estimate or interpolation. The substantial accuracy of the main results is beyond question.

The European section shows at each successive epoch a greatly increased population and acreage under corn, and a production increasing faster than either, so that yield per head and yield per acre alike rise materially and steadily. Nature's response to human effort in agriculture, on each unit of soil and for each unit of total population in Europe, has increased, not diminished, up to the very eve of the War. Needless to say, this greater production of corn has not been due to a shifting of population from industry to agriculture, and has not been offset by a decline of manufacturing. The general movement of population has probably been in the opposite direction, from agriculture to industry; the output of coal, iron ore, and steel, the basic materials and products of industry, has risen yet more rapidly than the output of corn.

There is no trace of reaction, either in industry or in agriculture, in the last ten years of the table; nothing to suggest a turning-point at 1900. It is true that the rate of increase in the yield of corn per head and per acre from 1900 to 1910 is less than in the preceding decade, but it is as great as in the decade from 1880 to 1890. In any case, a slowing down in the rate of

increase proves nothing. Corn is produced only to be consumed, and there is a limit to consumption. In the best and most progressive of all possible worlds, the consumption, and so the production, per head of wheat, rye, barley, and maize could not rise endlessly; when saturation-point had been reached the yield per head of these elementary necessaries would cease to rise, and the people would use their increasing powers over Nature to win luxuries and leisure. Something of this movement is already seen in the growth of wheat at the expense of rye between 1900 and 1910.

The second section of the table, covering the countries settled from Europe, begins only in 1890, but can be continued to 1920. It shows a very similar picture, not a markedly better one, in agriculture up to the War. From 1890 to 1910 the yield per acre of wheat has increased in the settlements a little faster than in Europe (15 against 12½ per cent.), but that of all crops taken together has increased more slowly (4 against 18 per cent.). The yield per head has also increased for wheat a little faster in the settlements than in Europe (25 against 18 per cent.), and for all crops a little more slowly (11 against 12 per cent.). The actual yield per head is, of course, much higher in the settlements; the yield per acre is lower for wheat, though higher for the other crops.

In general, as we find European agriculture more progressive than might have been expected, so we find the superiority of the new lands in that field less clear. It is in the industrial field, with doubled or trebled output of coal, iron ore, and steel per head between 1890 and 1910, that the progress of Europe's settlements is most marked.

In the third section of the table, taking Europe and its settlements together, we see progress, both in yield per acre and in yield per head of the four crops, more marked from 1900 to 1910 than from 1890 to 1900, and nothing to suggest a limit to the expansion of the white races in the countries which they hold.

The inclusion of Russia in any statistical table induces an element of uncertainty; it is difficult to be sure that figures for successive years relate to the same area. As a check upon this a second table has been prepared, giving figures for Western and Central Europe; that is, Europe without Russia and Poland. The broad results of this table from 1880 to 1910 are the same as those for Europe as a whole. The yield per acre for each crop and for all crops together is at each epoch higher than when

Russia is included and has increased more rapidly. The yield of all crops per head of population has also increased, though less rapidly than for Europe as a whole; this is natural, for the exclusion of Russia means the exclusion of a country which has suffered least from urbanisation.[1]

The main interest of the second table lies in the fact that it can be continued to a fifth epoch—1920—after the War. It shows that at that epoch the total production of wheat in Western and Central Europe was back again near the point where it stood in 1880; for the four crops together, production was about half-way between 1880 and 1890. In acreage under cultivation Europe had gone back still further, probably fifty years at least; the yield per acre was at the point where it stood twenty or thirty years before. The population of course was much greater. Taking the years 1920–1921 together, two and three years after the last shot of the Great War had been fired, Western and Central Europe in total agricultural production had gone back a generation; in production per head of population it had gone back fifty years and more. If Russia and Poland could be included the comparison would be worse. To point the contrast, we have the figures for Europe's settlements; from 1910 to 1920 a further growth of acreage under crops and of crops per acre, and a yield per head of population only slightly less.

This result is only incidental to the present inquiry. The main object of my calculations has been to test whether the facts suggested any diminution of returns to agriculture in Europe between 1900 and 1910. Having regard to Mr. Keynes' words, I expected to find in the last years before the war a falling yield in Europe, balanced by increased drawing on the virgin lands of the new world. Actually we find in Europe, decade by decade to the eve of war—population rising, acreage under corn rising,

[1] The maintained increase in the yield per acre and per head of total population in Western and Central Europe is remarkable, in view of the common assumption that in "old countries" the point of maximum return to agriculture has long been reached. Unfortunately actual census figures of occupations are available only for seven countries (Austria, Belgium, Denmark, France, Hungary, Italy, and the United Kingdom), omitting all-important Germany; these show for the seven countries a stationary yield of corn per head of the total population and a markedly higher yield per head of the agricultural population in 1910 than in 1900 or 1890. The figures themselves are open to criticism, but it seems safe to assume that in Western and Central Europe as a whole, with the great industrial states of Germany and Britain, the agriculturists form, from 1880 onwards, a diminishing proportion of the total population; per head of those actually employed on the land the yield must have risen yet more markedly than appears in the tables.

TABLE II.

Agricultural Production in Western and Central Europe.

Epoch	1880	1890	1900	1910	1920
Population (thousands)	225,613	242,817	264,517	289,893	291,713
Total Production (1000 quarters)					
Wheat . .	110,796	120,311	137,635	149,466	112,924
Rye . .	57,196	62,904	76,146	91,949	55,738
Barley . .	53,580	55,575	60,163	63,738	51,602
Maize . .	38,205	45,725	48,516	57,763	51,712
Four Crops . .	259,777	284,515	322,460	362,916	271,976
Area under Crops (1000 acres)					
Wheat . .	59,960	61,448	63,287	65,139	57,456
Rye . .	30,716	31,477	31,128	32,305	23,521
Barley . .	21,752	21,873	20,740	21,718	20,746
Maize . .	17,849	20,142	21,455	22,147	22,534
Four crops . .	130,277	134,940	136,610	141,309	124,257
Yield per Acre (bushels)					
Wheat . .	14·78	15·66	17·40	18·97	15·72
Rye . .	14·89	16·00	19·54	22·77	19·40
Barley . .	19·71	20·33	23·21	23·48	19·00
Maize . .	17·12	18·16	18·09	20·86	18·36
Four Crops . .	15·95	16·87	18·88	20·55	17·48
Yield per head (bushels)					
Wheat . .	3·93	3·97	4·16	4·13	3·10
Rye . .	2·63	2·07	2·30	2·54	1·53
Barley . .	1·90	1·83	1·82	1·76	1·41
Maize . .	1·35	1·51	1·47	1·59	1·42
Four Crops . .	9·21	9·38	9·75	10·02	7·46

Note to Table II.

The countries included up to 1910 are those forming "Europe" in Table I, with the exception of Russia and Poland.

For 1920 the area is nearly but not quite the same. The Polish war gains from Germany and Austria, being reckoned with Poland in the latter year, are excluded. On the other hand, Bosnia, Herzegovina and Montenegro (now part of the Serbo-Croat-Slovene state), Bessarabia (gained by Roumania from Russia), and the Serbian and Bulgarian gains since 1910 from Turkey are included. So far as can be judged, the excluded regions are somewhat less in area (122,000 square km. against 165,000) and somewhat greater in population (11,000,000 against 6,000,000 in 1911) than those included; that is to say, the term "Western and Central Europe" in my table represents a slightly larger area and a slightly smaller population in 1920 than in 1910. The differences, however, are unimportant; substantially the exclusions and inclusions balance one another and the total regions remain comparable.

total production rising still more, so that we got a greater yield per acre and per head of the total population.[1]

The Movement of Corn Prices.

The answer to our second question, as to the real cost of corn, is as certain and hardly less surprising. If before the War it was becoming "necessary year by year for Europe to offer a greater quantity of other commodities to obtain the same amount of bread," the money price of corn must have been rising relatively to the money price of other commodities. There is no trace of such a rise; the movement was in the opposite direction; up to the eve of war the price of corn was falling relatively to the price of other commodities.

Table III shows the movement of wholesale prices from 1871 to 1913 as recorded in the two best-known British indices: that of the Board of Trade and that of Sauerbeck. Both indices refer formally to the United Kingdom only, but there can be little danger in taking them as an indication of world conditions; United Kingdom prices from 1871 to 1913 must have followed world prices in all important movements.

[1] Detailed examination of the figures yields a number of interesting results which can only be briefly indicated here:

(1) The progress shown for all the countries taken together represents a general movement in the fifteen countries taken separately. Taking wheat alone, from 1880 to 1910 every country for which figures are available shows a large increase in the yield per acre, varying from 18 per cent. in France to 68 per cent. in Germany, and averaging 43 per cent.; the other countries show large increases from 1890 to 1910. Even from 1900 to 1910 of the fifteen countries every one but three shows an increased yield per acre; the United Kingdom is stationary and France has a trifling decline; the Danish figures are incomplete and abnormal. More surprising still, every one but four (Belgium, France, Holland and United Kingdom) shows an increase of wheat per head of total population in the decade. For crops other than wheat the figures are less uniformly progressive; generally between 1900 and 1910 yield per acre increased in each country for each crop, except barley (which increased in eight and decreased in six countries), but yield per head of total population increased only for wheat. This greater progress of wheat is in itself a sign of greater ease rather than stringency; it represents a rising, not a falling, standard of life.

(2) During the thirty years 1880 to 1910 the total acreage under each crop and the yield per acre, in Europe as a whole, have both grown. But the rates of growth for acreage and for yield per acre vary inversely. The acreage has increased most for barley (41 per cent.); next for wheat (38 per cent.); next for maize (33 per cent.); and least of all for rye (2 per cent.). The yield per acre has risen most for rye (45 per cent.); next for maize (22 per cent.); next for wheat (19 per cent.); least for barley (13 per cent.). This is an interesting statistical confirmation of expectations based on economic theory. The greater total production has been secured in wheat and barley mainly by bringing fresh lands under cultivation; in maize and rye, mainly by getting more out of lands already cultivated.

TABLE III.

Relative Movements in Wholesale Prices.

Board of Trade Index.

	All Articles	Corn	Meat & Dairy Products	Coal & Metals	As percentages of all articles (Col. 1) Corn	Meat & Dairy Products	Coal & Metals
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1871–80	138	166	110	81	126	86	59
1881–90	111	129	108	60	116	97	54
1891–00	95	108	96	65	113	101	67
1901–10	101	106	104	77	106	103	76
1911–13	114	116	115	84	102	101	74

Sauerbeck Index.

	All Articles	Vegetable Food	Minerals	As percentages of all articles (Col. 1) Vegetable Food	Minerals
	(1)	(2)	(3)	(4)	(5)
1851–60 . .	94	98	99	104	105
1861–70 . .	100	95	90	95	90
1871–80 . .	96	96	98	100	101
1881–90 . .	75	71	73	95	98
1891–00 . .	66	61	73	92	110
1901–10 . .	73	65	89	89	122
1911–13 . .	83	72	105	87	126
1919 . .	206	179	220	87	107
1920 . .	251	227	295	90	117
1921 . .	155	143	181	92	117
1922 . .	132	108	137	82	104

From the early 'seventies prices generally first fell heavily to about 1896 and then rose, though not to the height from which they had fallen; that is to say. the value of money in relation to commodities first rose and then fell. Through this complete reversal in the movement of prices generally, the price of corn in relation to other articles has moved steadily—and downwards. Decade by decade from 1871 and to the last three years before the War the price of corn, as recorded by the Board of Trade, has fallen relatively to prices as a whole (column 5); with less regularity, but even more markedly, the relative price of coal and metals has risen (column 7). The result of these two movements is startling; to get in 1911–13 the same amount of corn as in 1871–80 or 1881–90, it would have been necessary to offer, not more coal and metals at the later than at the earlier dates,

but one-third less. The Sauerbeck index leads to substantially the same results; it shows from 1871–80 onwards a steady fall in the price of vegetable food and an even greater rise in the price of minerals relatively to all articles (columns 4 and 5); the cost in terms of minerals of a given quantity of vegetable food would have been one quarter to a third less on the eve of the War than it had been a generation before. Both indices point emphatically to a falling, not a rising, real cost of corn.

Index-numbers of wholesale prices are open to criticism, in this connection as in many others, because they refer mainly to raw products and give little or no representation to manufactured articles. It would be consistent with the figures quoted above to argue that though the price of coal and of other minerals which are the basis of manufacturing, had risen relatively to corn, the price of manufactured articles themselves as a whole had fallen relatively to corn. Such a result, paradoxical as it is, could occur in two ways: either if increases in manufacturing efficiency reduced the cost of manufacture or distribution, or if a superfluity of labour fit only for industry, as distinct from agriculture, reduced the reward to such labour, by an amount sufficient in each case to outweigh the increased cost of coal and other minerals. The first is a real possibility; it is just in the spheres of manufacturing and distribution that increased efficiency most naturally accompanies a growth in population and that invention and organisation win their last victories over diminishing returns. But a cheapening of manufacture in this way involves not a decreasing but an increasing return to each unit of labour in industry; it would cause a fall of the real cost of corn measured in labour. The second way assumes a fall in real wages of industrial workers both absolutely and relatively to those of agriculturists such as quite certainly has not taken place in Europe.

In regard to Europe as a whole we find no ground for Malthusian pessimism, no shadow of over-population before the War. Still less do we find them if we widen our view to embrace the world of white men. Mr. Keynes' fears seem not merely unnecessary but baseless; his specific statements are inconsistent with facts. Europe on the eve of war was not threatened with a falling standard of life because Nature's response to further increase in population was diminishing. It was not diminishing; it was increasing. Europe on the eve of war was not threatened with hunger by a rising real cost of corn; the real cost of corn was not rising; it was falling.

Room for Expansion.

I have dealt at some length with Europe before the War because that is Mr. Keynes' theme; in his view, the society that seems bent on self-destruction by the Carthaginian peace that crowned the War was already in deadly peril from Nature. If now, with better assurance as to the past, we look for a moment at the distant future of the European races, the first, though not the only, point for consideration is the extent of the world's untouched or half-used resources in land and minerals. On this point, unfortunately, the existing information goes only part of the way. It is certain that enormous areas of the earth which are fit for cultivation are not yet cultivated at all, and that of other areas only the surface has been scratched; but it is not certain how great the areas that could be cultivated are; how much of the land that is now unproductive of anything must for ever remain so.

In most European countries from 70 to 95 per cent. or more of the total area is now classed as "productive"; it is being turned to some use—as arable, pasture, forest, and the like. In nine provinces of Canada (excluding the desolate Yukon and North-West Territories) the percentage of all the land that now produces anything is 8, in Siberia 18, in Australia 6, in South Africa 3. Even for the United States it is only 46, and for European Russia 55.[1] Part, no doubt, of the "unproductive area" in all those countries is beyond possibility of cultivation; it is impossible on the present information to say how large a part. But the figures as they stand are eloquent of how little the European races have yet done to fill the lands that they hold; how ample the room for their expansion. Any suggestion that these races have reached or are within sight of territorial limits to their growth hardly deserves serious consideration.

Material Progress in Britain.

It is reasonable to suppose, however, that Mr. Keynes, though he speaks throughout of Europe, though he emphasises his European standpoint, was at heart concerned mainly for his own country, and may thus have generalised impressions derived from Britain. For us at least the position in these islands, rather than that in Europe or in the world as a whole is of prime importance. If we look at Britain in the last years before the War and ask if all was then well and the prospect cheerful, we

[1] *International Yearbook of Agricultural Statistics*, 1921, pp. 20-21.

get no clear answer to our question. The picture that our economic records paint is half in shadows; to many the shadows will seem ominous of ill.

Unfortunately on this issue, so vital to our interests, the use of statistical tests is peculiarly difficult. The yield of our soil in agriculture is clearly irrelevant; only less so is the yield in such elementary industries as coal or iron mining or pig-iron production. Britain is essentially a manufacturing, commercial, and financial country; the return to its labour is measured by its output or gain from finished articles and services which themselves, by their infinite variety, escape all measurement. Current statistics both of production and of prices refer mainly to raw materials or food; they miss the main features of British economic life and service.

With this warning I invite consideration of the accompanying table of "Material Progress in the United Kingdom relative to Population." The table shows at six successive epochs, beginning with 1860 and ending with 1910, the course of some of the most important indices of economic conditions. The figure for each epoch is an average for ten years in which the epoch is central; thus for "1860" the average of 1855-64 is taken, for "1870" the average of 1865-74, and so on; for the last epoch, "1910," the average is for the nine years 1905-13 alone; all War years are omitted. The various indices cover the activity of five important industries (coal, pig-iron, shipbuilding, cotton, wool), measured either by production or by consumption of raw material, and of our export trade as a whole; the course of "real wages" and of "real income," *i. e.* of money rates of wages and of money income per head, corrected to allow for changes in the purchasing power of money; the consumption of certain articles of food and drink; and housing. The influence of the growth of the population and the influence of fluctuations in prices have both been eliminated. The figures are presented in two ways; the upper half of the table gives actual figures of production, consumption or "real income" per head; the lower half gives the same figures as index-numbers in which the figure for 1900 is taken = 100 and forms the basis. Comparisons with this critical epoch are thus made easy. What does the table show?

It shows, first, for every separate index a marked and almost unbroken rise, epoch by epoch, to the last but one in 1900. There are occasional reactions (as with pig-iron from 1880 to 1890 or cotton in the following decade), but these are only ripples on a powerful and rapid stream. From starting-points of about 50

TABLE IV.

Material Progress in United Kingdom relative to Population.

Epoch	Coal Production per head. tons	Pig-iron Production per head. cwt.	Ship-building Tonnage per 1000	Raw Cotton Con-sumption per head. lbs.	Raw Wool Con-sumption per head. lbs.	Exports Index [1]	Real Wages [2]	Real Income per head [3] at 1913 prices £	Con-sumption of Food, Drink, etc. [4]	Housing [5] (Scotland)
1860 (1855–64) .	2·62	2·70	9·72 [6]	28·1	—	48·5	60·7 [9]	26·0 [9]	86·1	43·4
1870 (1865–74) .	3·59	3·60	13·52	33·5	10·40	71·6	67·8	29·6	92·8	46·1
1880 (1875–84) .	4·21	4·20	15·99	38·6	10·25	80·0	77·4	34·1	103·5	49·2
1890 (1885–94) .	4·62	4·00	16·68	40·6	11·85	97·4	91·6	40·0	109·8	51·8
1900 (1895–04) .	5·22	4·30	20·36	40·1	12·35	102·7	101·0	45·9	120·9	54·3
1910 (1905–13) .	5·89	4·34	21·49	42·2 [7]	12·56 [8]	126·1	101·0	46·9	122·9	56·4
1860 (1855–64) .	50·2	62·8	47·7	70·0	—	47·2	60·1	56·6	71·3	79·9
1870 (1865–74) .	68·8	83·7	66·4	83·5	84 2	69·7	67·1	63·8	76·8	84·7
1880 (1875–84) .	80·6	97·7	78·5	96·3	83·0	77·9	76·6	74·3	85·7	90·6
1890 (1885–94) .	88·5	93·0	81·9	101·2	96·0	94·9	90·7	87·1	90·9	95·4
1900 (1895–04) .	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0
1910 (1905–13) .	112·8	100·9	105·5	105·2	101·7	122·8	100·0	102·2	101·7	103·9

[1] Value of exports per head divided by Sauerbeck Index of Wholesale Prices. The "actual figures" are index-numbers on basis 1900 = 100.

[2] Mr. G. H. Wood's Index-number (*Statistical Journal*, March 1909) brought up to 1913 by Professor Bowley and reduced to basis 1913 = 100.

[3] Money Income calculated on basis adopted by Professor Bowley (but without allowing for unemployment) and divided by Mr. G. H. Wood's Index-number of the Cost of Living (*Statistical Journal*, March 1909) brought up to date by Professor Bowley.

[4] Based on Mr. Wood's Index-numbers of Consumption (*Statistical Journal*, December 1899), omitting cotton, wool, wine and spirits, weighted on System V in Mr. Wood's paper and carried forward by figures supplied by Professor Bowley. The first figure relates to 1860, 1862, and 1864. Mean of 1870–79 = 100.

[5] The figures give the percentage of persons living not more than two to a room in Scotland at each census from 1861 to 1911. Comparable figures for successive censuses are not available for England and Wales.

[6] 1858–64. [7] 1905–12. [8] 1905–11. [9] 1860–64.

or 60 the various indices moved in fifty years to 100; the general progress from 1890 to 1900 was not less than in previous decades. Unquestionably up to 1900 the average productivity and prosperity of each unit of the population rose as the number of units rose; there was a rapidly increasing return to labour as a whole. This was the complacent Victorian Age which led the world in material progress and piled up savings without effort.

The table shows, next, from 1900 to 1910 a more interesting but more dubious picture. With one exception—real wages—every index has risen, but with two exceptions—coal production and exports—the rise is slower than in previous decades, and in more than one case is barely perceptible. Running our eyes along the last three lines of the table, we see pig-iron going from 93 in 1890 to 100 in 1900 and only 101 in 1910; shipbuilding goes 82, 100, 105; wool 96, 100, 102; real wages 91, 100, 100; real income 87, 100, 102; consumption of food and drink 91, 100, 102; housing 95, 100, 104. In index after index a rapid rise to 1900 is followed by a smaller rise, or by no rise at all, to 1910. In cotton there had been reaction from 1890 to 1900; the resumed progress to 1910 was at much below the former average rate. Only in coal production and exports is the rapid progress of Victorian days maintained or accelerated; those two indices represent largely one factor, not two, for coal more than anything else swelled our recent exports.[1] In every other case, rapid certain growth to 1900 gives place to small and dubious improvement in the next ten years. This is the cramped, uneasy, envious, but not impoverished age of Edward.

None of the indices, indeed, records an actual decline; all still show progress however small. Even if the index of "real wages"—stationary from 1900 to 1910—be accepted without question, the workman was slightly better off at the later epoch, since hours of work were less; he was getting the same wages for a shorter week. We cannot speak of a falling return to labour;

[1] Curiously enough coal is the product for which a diminishing return to labour in this country, not since 1900 merely but long before, seems to be most definitely established. In relation to the number of persons actually employed in mining the output has fallen rapidly, from 324 tons per head per annum in 1881–85, to 288 tons in 1895–99 and 254 tons in 1909–13. If we combine these figures with those showing the relative movement in the wholesale prices of coal and of corn, we find that the amount of corn that could be bought by one person's output of coal in a year rose 30 per cent. from 1881–85 to 1895–99, and was stationary from then to 1909–13; as the hours of work had been reduced between the two latter epochs, the real cost in mining labour of a given quantity of corn had continued to fall slightly even in Britain. The increasing response of Nature to agricultural effort was just more than sufficient to outweigh the effects of her diminishing response to the British miner.

at most we see a lower rate of increase, such as might, or might not, precede an actual fall. The contrast, however, between the Victorian and the Edwardian ages is unquestionably disturbing. In Britain, if not in Europe as a whole, the turn of the century seems to bring a turn of fortune. What conclusions are we to draw? What remedies, if any, can we apply? We shall find reasons for not being too ready to despair of the commonwealth.

The Edwardian Age and its Meaning.

In the first place, there is ground for optimistic doubts as to the figures themselves. Several of them, particularly the indices of real income, real wages and consumption, are elaborate structures based largely on estimates; others are suspect for various reasons; none need be believed to the death.[1] And even if the structure be sound, no established index of material prosperity can be expected to rise indefinitely. Progress involves change. When a nation has reached a certain point in the consumption of necessaries, it will utilise further purchasing power, not in consuming more of those necessaries, but in other ways: in buying bananas and condensed milk instead of more bread or meat, in tasting leisure, education, travel, football, cinemas, and other delights which do not appear in any index. So there may be a saturation-point in production; after putting its growing strength for many years into shipbuilding or cotton a nation may find greater need for its services in other directions—in transport, commerce, or finance.

In the second place, even if we admit, as I, for one, am pre-

[1] Two special causes of doubt are worth mentioning :—

(1) The presentation of the figures as averages for particular decades, necessary as it is in order to give within reasonable space a summary picture of the whole, is deceptive, because the various decades are unequally affected by the phases of the trade cycle. The years 1895–1904 contain but one year of slight depression (1904) and an undue proportion of "good" years. The nine years 1905–13 contain the end of the slight 1904–5 depression and the whole of the exceptionally severe depression of 1908–9. The course of cyclical fluctuation unfairly weights the comparison against the later epoch.

(2) The falling off of cotton, not only in the last decade but ever since 1860, is in large part apparent only. British industry was concentrating more and more on fine counts, using more spindles and producing more value for the same weight of raw cotton.

A point on the other side, *i.e.* making the comparison unduly favourable to later epochs, is the change in the age-constitution of the population. The population in 1910 included a larger proportion of adults and a smaller proportion of children than that of 1900; production and consumption "per head" should have been slightly higher to maintain the same standard in relation to capacity. The correction to be applied on this account is too small to disturb the comparison appreciably.

pared to admit, that there was some real change in our conditions, some faltering in our progress in the first years of this century, it may yet be no more than a transient phenomenon, a result of special causes not pointing to permanent change. At the turn of the century we do in fact find special and temporary influences disturbing our ordinary development. One of these is the South African War; that war, like other wars, probably caused a greater loss of savings than of human life; it would leave capital scarce relatively to labour and in a stronger position to bargain. Another is the change in the movement of prices. Just before 1900 the falling tide of prices turned. From 1900 to 1913 we lived on a rising tide. This also is an element favouring capital as against labour, profits rather than wages. Yet another special influence at the turn of the century is a change in the rate of labour supply, due partly to the course of birth- and death-rates more than twenty years before and partly to the development of compulsory education. This point calls for explanation.

In 1876 the birth-rate in this country reached its maximum. At the same time, or just before, important steps were taken for the improvement of public health; the death-rate, which had changed little for thirty years, began to fall, and fell steadily thereafter. There followed a quarter of a century later, as a wave follows a distant earthquake, an abnormal growth in the supply of adult labour. As has been pointed out by Mr. Yule, the number of males aged twenty to fifty-five rose 19 per cent. from 1891 to 1901, as compared with a rise of 14 per cent. from 1881 to 1891, and 10 per cent. in earlier decades.[1] If we take five-year averages, the rate of natural increase (difference of birth- and death-rates) reached its highest points in the years 1876–1880 and 1881–1885. Normally, this would have shown itself first by large numbers of boys entering the labour market in the early 'nineties. At the same time, however, the Education Acts were withdrawing more and more boys under fourteen into the schools. The State dammed up the rising flow of juvenile labour for a year or two. The main pressure in the labour market began to be felt later, *i. e.* about 1900, and presented itself as the "problem of boy labour," which was really the problem of those who had got boy's work easily enough between fourteen and twenty (replacing the younger children kept at school), but found themselves in difficulties when they reached man's estate.

[1] See Mr. Yule's paper on "Changes in the Birth and Marriage Rates" in the *Journal of the Royal Statistical Society*, March 1906.

This abnormal movement was bound, for the time at least, to disturb the balance between the growth of capital needed to employ labour and the growth of labour seeking employment. Some temporary pressure in the labour market was inevitable. It might cause a check in economic progress as measured per head of the total population; it would certainly, in the bargaining between labour and capital for the division of their joint product, make labour for the moment relatively weak and capital for the moment relatively strong because scarce. Wages would lose relatively to profits.

All these special influences favour capital against labour. It is in accord with them that, of all our economic indices, that which shows worst, the only one that shows no progress at all from 1900 to 1910, is real wages, the reward to labour; that which almost alone shows continued progress at the full Victorian rate is exports, to be explained perhaps in large measure as the surplus profits of capital.

With these points in mind, we reach an economic interpretation of the Edwardian age, reasonable in itself and consistent with other than economic records. That age does not live in our memories and will not live in drama and fiction [1] as a season of hard living and hard labour. It comes back to us now rather in the guise of the ball before Waterloo, as an episode of unexampled spending and luxury; as the time when we saw our roads beset by motors, our countryside by golfers, our football grounds by hundred thousand crowds and a new industry of bookmakers, our dancing-rooms and dining-rooms by every form of extravagance. The smooth development of Victorian days was broken, but the characteristic of the time was inequality of fortune rather than general misfortune; discontent rather than poverty; a gain by capital in relation to labour, by profits in relation to wages, by some classes of workmen at the expense of others, even more than a check to our progress as a nation. Some check to our national progress there probably was, but we are not bound to believe that the check was permanent. The three factors described above—the earthquake wave of labour supply, the South African War, and the upward turn of prices—are all peculiar to their time. The relative shortage of capital would tend to produce its own corrective. Difficulty in absorbing an abnormal flood of new labour does not prove permanent overpopulation; if all the hundred million persons who now find room

[1] *Sonia*, by Stephen McKenna; *Tono-Bungay*, by H. G. Wells; *The Regent*, by Arnold Bennett.

and growing opportunities in the United States had landed there at once they would all have starved.[1]

In the last three years before the War we find in nearly all indices resumption of a rapid upward movement. What would have happened if the War had not come? Would the Edwardian age have proved a passing episode of unrest or the beginning of a serious threat to our prosperity? This is one of many questions whose answer is buried in the common grave of war.

In the third place, even if the new century was to see in Britain a lasting and not a transient harshening of conditions, if the rich ease of the Victorian age had gone for ever with Victoria, there is little ground for surprise. Malthus or no Malthus, it was not reasonable to expect Britain to keep up for ever the speed that marked her start in the industrial race. Providence had not concentrated in these islands the coal and iron supplies of all the world. As the United States and Germany and France developed their own mineral resources, Britain was destined to find her general industrial supremacy challenged, now in one field now in another; she would be driven to discover and maintain those branches of work in which she had the greatest economic advantage, and to withdraw from the rest. This process of challenge and adjustment was bound to occur irrespective of the growth of population, and as it occurred to give rise to strains and pressures; when accomplished it might yet leave room for progress, if not at the full Victorian pace.

Of Britain before the War we may conclude that the position called for serious thought, not tears or panic. The economic records are open to diverse readings. The check to material progress in the Edwardian age may in part have been less than appears, and in part real but due to transient causes. At worst our industrial rank was challenged, not destroyed; forgetting some of the slacknesses of our easy days, we might through science and system and industrial peace have won a new lease of rapid progress. In this direction lay our remedy; in this, I think, rather than in hastening the process of birth restriction which had begun a generation before.

Britain and Austria after the War.

Let us pass to Britain after the War. Here, statistical tests of progress must be abandoned altogether. War's disturbance

[1] This is pointed out by a recent author, Mr. H. Wright, in *Population*, p. 110 ("Cambridge Economic Handbooks," 1923).

of our economic life and all its standards and records is barely subsiding; to found judgments of the future on the course of production or wages or prices in the years of demobilisation is vanity. Judgment by recorded results is impossible; we are driven back to general considerations for an estimate of prospects in this new but not better world.

The first principle of population to-day is that, under conditions of economic specialisation and international trade, the population problem in any particular country cannot profitably be considered without reference to other countries. The problem in every country is a problem of the distribution of the population of the world as a whole. The actual density in different regions of the earth varies fantastically, according to the part which that region plays in the life of the world, from less than one person per square kilometre in Canada or three in the Argentine, through 186 in Britain, or 245 in Belgium, to 760 in Monaco or 3,538 in Gibraltar.[1] The "optimum density"[2] for any one country at each moment depends not solely or even mainly upon its own resources of natural fertility or mineral treasure, on its own achievements of technique or co-operation, but on how in each of these matters it compares with other countries, on whether other countries are prospering or depressed, on the relations of its own people—in respect of peace or war, of trade or tariffs—towards other peoples.

Britain illustrates this principle more clearly than any other great country, because of all great countries Britain has grown to be the least self-sufficient, the most highly specialised, the most dependent on trade and peace and world-wide co-operation. A pregnant analogy will make the position clear.

In Central Europe, before the War, lived, under one dynastic ruler, a congeries of communities known collectively as the Austro-Hungarian Empire. These communities formed together a single economic unit, a free-trade area with fifty million inhabitants, in which every stage of economic activity, from the simplest agriculture to the most developed finance, was strongly represented, in which all the separate functions came to be distributed

[1] These figures relate to 1911 and are taken from Table I of the International Year Book of Agricultural Statistics. A remarkable instance of the density possible to a purely agricultural population is presented by Java and Madura, which in 1921 had a population of 35,000,000, living 266 to the square kilometre, more than the most crowded industrial states of Europe. This involves of course a Chinese standard of life.

[2] That is, the density which will bring the largest return per head of the population. *Cf.* Cannan, *Wealth*, p. 68, and Carr-Saunders, *The Population Problem*, pp. 200 *seq.*

locally according to economic advantage without regard to internal boundaries. Some regions—east and south—were predominantly agricultural; in the north-west were extractive industries of coal and iron, and manufactures founded upon them; further south were other manufactures, and the main seat of commerce and finance. Here was timber; there water-power. Each industry tended to settle where it could most profitably be carried on. Within each industry local specialisation often went very far; thus, in cotton, one region predominated in the first and final processes (spinning and bleaching), another had more than its share of intermediate processes (such as weaving); the locomotives for railways came to be built in one region and the waggons in another. In the centre lay Vienna, a natural meeting-point entrenched by art in a system of radiating railways, concentrating on itself the most advanced stages of social life—fine manufactures, commerce, distribution, transport, finance, administration—a large and prosperous head directing and nourished by a large body. While the Austro-Hungarian Empire lasted, this headship brought with it the first place in prosperity. The wealth, pleasure, and extravagance, no less than the government, education, science and art, of fifty millions made Vienna their centre.

The War came and went, and with it went the Empire. The dynastic ruler disappeared; the congeries dissolved; each community became a separate body desiring and needing a separate head, aiming at self-sufficiency, seeking it by economic barriers against intercourse. In that break-up the average prosperity of all the fifty millions has sunk. Nearly every region is in some way poorer than before. But no region has suffered as much as Vienna; in none does the loss take the characteristic appearance of over-population. Vienna remains a head grotesquely too large for the shrunken body of German Austria, manifestly over-populated, as little able to support its former numbers at their former standard, as would be Monaco if the nations gave up gambling or Gibraltar if they gave up war. It is over-populated, not through exhaustion of its natural resources, not because in the past its people were too prolific, but because the world outside has changed too suddenly.

De nobis fabula—the fate of German Austria is the moral for Britain. No other country of comparable size is so highly specialised as Britain. None produces so small a proportion of the food that it requires, or of the raw materials of its industries. None is so predominantly engaged in the advanced ranges of

economic activity; in industry rather than agriculture; in finishing processes rather than the extraction of raw material; in transport, commerce and finance, rather than manufacture. No other country, therefore, is so completely dependent upon the restoration of peace and trade and economic co-operation. None is destined to suffer so acutely from any general disorder. At this moment perhaps none is suffering so much.

It is needless to seek in excessive fecundity an explanation of our present troubles. There are other reasons, enough and to spare, why we should expect now to suffer from unexampled unemployment. Two exceptional causes of unemployment are now added to the normal movement of cyclical fluctuation. One is the difficulty of passing from war and war industries to peace—the difficulty of making swordsmen into ploughboys. The process of training and directing the new supplies of labour to fit the changing needs of industry has been broken by the War; there is a maladjustment of quality between labour supply and labour demand. The second cause lies in the damage done by the War and its aftermath to the economic structure of the world; the destruction of capital, the relapse of great nations towards barbarism, the breaking of easy and friendly intercourse, the continuance of war measures, the smaller volume of international trade and its shifting into new channels. The world has changed suddenly, if less completely, round us as round German Austria. Many of our trades find their former customers dead or impoverished or cut off by new barriers; the labour trained to those trades cannot shift to fill the gap in production which is left by the disappearance of those customers and their work. In both these ways, in terms which I used in writing of unemployment fifteen years ago, we have leading instances of those "changes of industrial structure" which leave legacies of enduring unemployment, to be reduced only as the labour ill-fitted for new needs is slowly and individually absorbed again or is removed by death or emigration.[1]

The fate of Austria has a bearing not on war alone. The world may change otherwise than by war. The "optimum density" of population for any country may be diminished not by anything happening in that country, but by the discovery and exploitation of resources in other countries; possibly even

[1] Uncertainty as to the course of prices, with its paralysing effect on business enterprise, ought perhaps to be named as yet another special cause of post-war unemployment. Alternation of upward and downward movements of prices is, of course, one of the elements in normal cyclical fluctuation.

by tariff changes. The more any country is specialised in its economic functions, above all if it is specialised in the most developed rather than in the primary functions, the greater is its liability to such changes. Britain, becoming yearly less self-sufficient, setting each year a swiftly growing people to more and more specialised labour, increasing each year its inward and outward trade, was before the War taking more and more the Austrian risk. It is arguable that with this lesson before us we ought no longer to take the risk so fully; should retrace our specialisation and aim at self-sufficiency—in practical terms, under a system of tariffs or bounties, should grow more corn and do less trade. The short answer to that argument is that we are already too far from self-sufficiency to make worth while any attempt to return. Any change great enough to diminish seriously our dependence on overseas trade, in other words our exposure to the Austrian risk, would involve an impracticable reduction in out total population and our average wealth. A middle course that is sometimes suggested is to aim at self-sufficiency in the British Empire, by tariff arrangements favouring Imperial rather than foreign trade. The adoption of such arrangements clearly depends more on the wishes of the Dominions than on those of Britain, and their value for the purpose in view upon the readiness of the Dominions to acquiesce in a division of economic functions which would leave the most advanced and most profitable ones to the British Isles. It is more than doubtful whether this is the Dominion view of Imperial economics. In the last analysis, the long road which Britain has travelled to dependence on international trade, as general and as free as possible, will, I believe, be found to be irretraceable. Like the hero of one of Mr. Wells' novels, the Britain that we know, the Britain of forty millions, has been made for a peaceful and co-operative world; she must try to create such a world if she does not find it ready to hand.

Recapitulation.

It is time to gather together the threads of this long discussion. A further quotation from Mr. Keynes' writings will serve for a starting-point :—

" The most interesting question in the world," he writes, " (of those at least of which time will bring us an answer) is whether, after a short interval of recovery, material progress will be resumed, or whether, on the other hand, the magnificent episode of the nineteenth century is over. In attempting to answer this question it is important not to exaggerate the direct effects

of the late War. If the permanent underlying influences are favourable, the effects of the War will be no more lasting than were those of the wars of Napoleon. But if even before the War the underlying influences were becoming less favourable, then the effects of the War may have been decisive in settling the date of the transition from progress to retrogression." [1]

The warning deserves attention. Yet, as I am less inclined than Mr. Keynes to be pessimistic about the tendencies before the War, I feel perhaps more pessimistic than he is in this passage about the effects of the War, and the possibly enduring damage it may have done and be destined to do to humanity.

Before the War, as I have tried to show, there is nothing to suggest that Europe had reached its economic climax; Malthus' Devil, unchained again or not, cannot be found where Mr. Keynes professes to find him. For the world of white men as a whole there is even less ground for pessimism; the limits of agricultural expansion are indefinitely far. If we regard only that part of this world which is known as Britain, judgment is not so easy. Some change did come over our economic life, or certain parts of it, with the turn of the century; our effortless supremacy was challenged. Reasonable men may dispute, and since the decisive evidence has perished will probably dispute for ever, whether the unrest and uncertainty of the Edwardian age marked a passing episode destined but for the War to give place to a fresh stage of swiftly rising prosperity, or, on the other hand, recorded the first shock of permanent forces working to make life in these islands less easy and to set a term to material progress.

After the War—for that phase, if indeed we have reached it, I doubt whether we may find much comfort in Napoleonic parallels. The Napoleonic wars were wars between Governments and armies rather than peoples; they did not bite deeply into economic life; they left it possible for the best contemporary fiction to show a picture of English society in which the military figure chiefly as dancing partners.[2] The war of 1914–18 was waged on millions of non-combatants, as much as on armies; it is being continued in the same form to-day; the economic structure of the world, battered out of shape by four years of open war, is still twisted by human passions. The lesson of compulsory self-sufficiency has been learnt too well; in all parts

[1] "An Economist's View of Population," in the *Manchester Guardian Reconstruction Supplement*, Section Six (1922).

[2] Jane Austen's first three novels were written during the Revolutionary Wars (1796 to 1798); her last three between Wagram (1809) and Waterloo (1815).

of the world, by new economic barriers, nations are endeavouring to safeguard, at the expense of their native and natural industries, the industries which were forced on them by the extremities of war. The world is poorer in resources by its lost years and ruined capital; of those diminished resources it makes worse use.[1]

To sum up, for Europe and its races the underlying influences in economics were probably still favourable when the War began. But the war damage was great and we are not in sight of its end. Man for his present troubles has to accuse neither the niggardliness of Nature nor his own instinct of reproduction, but other instincts as primitive and, in excess, as fatal to Utopian dreams. He has to find the remedy elsewhere than in birth control.

The Population Problem Remains.

Let me add one word of warning before I finish. Such examination as I have been able to make of economic tendencies before the War yields no ground for alarm as to the immediate future of mankind, no justification for Malthusian panic. It has seemed important to emphasise this, so that false diagnosis should not lead to wrong remedies for the world's sickness to-day. But the last thing I wish is to over-emphasise points of disagreement with Mr. Keynes. The limits of disagreement are really narrow. The phrases which I have criticised are incidental, not essential, to Mr. Keynes' main argument as to the consequences of the War and the peace. And whether Mr. Keynes was right, or, as I think, too pessimistic in his reading of economic tendencies before the War, he will be regarded as unquestionably right in calling attention again to the importance of the problem of population. Nothing that I have said discredits the fundamental principle of Malthus, reinforced as it can be by the teachings of modern science. The idea that mankind, while reducing indefinitely the risks to human life, can, without disaster, use to the full a power of reproduction adapted to the perils of savage or pre-human days, can control death by art and leave birth to Nature, is biologically absurd. The rapid cumulative increase following on any practical application of this idea would within measurable time make civilisation impossible in this or any other planet.

In fact, this idea is no more a fundamental part of human thought than is the doctrine of *laissez-faire* in economics, which

[1] The recent development of prohibitive tariffs is very fully described in a special supplement by Dr. Gregory to the London and Cambridge Economic Service

has been its contemporary, alike in dominance and in decay. Sociology and history show that man has hardly ever acted on this idea; at nearly all stages of his development he has, directly or indirectly, limited the number of his descendants.[1] Vital statistics show that the European races, after a phase of headlong increase, are returning to restriction. The revolutionary fall of fertility among these races within the past fifty years, while it has some mysterious features, is due in the main to practices as deliberate as infanticide. The questions now facing us are how far the fall will go; whether it will bring about a stationary white population after or long before the white man's world is full; how the varying incidence of restriction among different social classes or creeds will affect the stock; how far the unequal adoption of birth control by different races will leave one race at the mercy of another's growing numbers, or drive it to armaments and perpetual aggression in self-defence.

To answer these questions is beyond my scope, as it is beside my purpose to pass judgment on the practices from which they spring. The purpose of my paper is rather to give reasons for suspending judgment till we know more. The authority of economic science cannot be invoked for the intensification of these practices as a cure for our present troubles. But behind these troubles the problem of numbers waits—the last inexorable riddle for mankind. To multiply the nation and not increase the joy is the most dismal end that can be set for human striving. If we desire another end than that, we should not burk discussion of the means. However the matter be judged, there is full time for inquiry, before fecundity destroys us, but inquiry and frank discussion there must be. Two inquiries in particular it seems well to suggest at once.

The first is an investigation into the potential agricultural resources of the world. There has been more than one elaborate examination of coal supplies; we have estimates of the total stock of coal down to various depths in Britain and Germany, in America, China, and elsewhere; we can form some impression of how long at given rates of consumption each of those stocks will last; we know that "exhaustion" is not an issue for this generation or many generations to come. There has been no corresponding study of agricultural resources; there is not material even for a guess at what proportion of the vast regions—in Canada, Siberia, South America, Africa, Australia—now used for no productive purpose could be made productive; at

[1] See *The Problem of Population*, by A. M. Carr-Saunders.

what proportion of all the "productive" but ill-cultivated land could with varying degrees of trouble be fitted for corn and pasture. Without some estimate on such points, discussion of the problem of world population is mere groping in the dark. The inquiry itself is one that by an adequate combination of experts in geographic, agricultural and economic science—not by a commission gathering opinions or an office gathering statistical returns—it should not be difficult to make.

The second is an investigation into the physical, psychological, and social effects of that restriction of fertility which has now become a leading feature of the problem. This also is a matter neither for one person—for its scope covers several sciences—nor for a commission; facts rather than opinions or prejudices are required.

If the question be asked, not what inquiries should be made but what action should now be taken, it is difficult to go beyond the trite generalities of reconstruction, of peace and trade abroad, of efficiency and education at home. The more completely we can restore the economic system under which our people grew, the sooner shall we absorb them again in productive labour. Unless we can make the world again a vast co-operative commonwealth of trade, we shall not find it spacious enough or rich enough to demand from these islands the special services by which alone they can sustain their teeming population. Even if the world becomes again large enough to hold us, we shall not keep our place in it with the ease of Victorian days; we dare no longer allow, on either side of the wage bargain, methods which waste machinery or brains or labour. Finally, if there be any question of numbers, if there be any risk that our people may grow too many, the last folly that we can afford is to lower their quality and go back in measures of health or education. Recoil from standards once reached is the gesture of a community touched by decay.

W. H. BEVERIDGE

A REPLY TO SIR WILLIAM BEVERIDGE

I

It is flattering but a little severe to be taken up through a Presidential address on the strength of an *obiter dictum* of a few sentences. (The subject is a large one and an author may have more to say in support of his general attitude to it than can be well expressed in a single page of a book on another topic.) But worse still when even that paragraph is mis-handled.

My main convictions relate to the present state of affairs—whether Great Britain and Europe can continue to support an increasing population on an improving standard of life now that the precarious equilibrium which existed before the war[1] has been fatally disturbed. Incidentally I expressed a doubt whether the state of affairs by which " up to about 1900 a unit of labour applied to industry yielded year by year a purchasing power over an increasing quantity of food " may not perhaps have been already reversed about that date.

It is always difficult to trace, through the oscillations which obscure the long-period trend, the precise moment when a diminishing rate of improvement passes over into an actual loss of ground. But Sir W. Beveridge's paper makes me no clearer than I was as to whether I was rash to express the doubt in question; for the statistics which he quotes have no direct bearing on my remarks.

I was concerned with the ratio of real interchange between the manufactured products offered by the Old World, and the food and raw materials supplied by the New. I thought I saw a tendency of this ratio to alter, with the result that Europe was having to offer more of her own goods in exchange for imported agricultural produce. I made no fresh study of this question when I wrote *The Economic Consequences of the Peace*, but was merely repeating a view which I had expressed in The Economic Journal in 1912 (Vol. XXII. p. 630), based on some figures given there and on the more comprehensive calculations set forth in Professor Bowley's well-known memorandum published in The Economic Journal in 1903 (Vol. XIII. p. 628). It will be useful to repeat here the salient figures.

[1] My phrases about this are those first quoted above by Sir W. Beveridge on p. 452.

Professor Bowley's object was to make a table year by year, for the United Kingdom and for Germany, of "the quantity of exports (the kind supposed unchanged) that were given for a uniform quantity of imports." His results for the United Kingdom were as follows :

Volume of Exports given for a Uniform Quantity of Imports.

1873	100	1883	118	1893	105
1874	103	1884	115	1894	102
1875	107	1885	114	1895	102
1876	110	1886	113	1896	102
1877	118	1887	111	1897	102
1878	114	1888	113	1898	103
1879	116	1889	112	1899	99
1880	119	1890	104	1900	94
1881	123	1891	105	1901	95
1882	118	1892	106	1902	100

This is *primâ facie* evidence that our position, after deteriorating from 1873 to 1881, improved uninterruptedly from 1881 to 1900.

In my memorandum of 1912 (*loc. cit.*) I was reviewing the corresponding figures of the Board of Trade for the years 1900–1911 (Cd. 6314), which were as follows : [1]

1900	94	1903	101	1906	99	1909	103
1901	96	1904	100	1907	98	1910	104
1902	99	1905	101	1908	98	1911	101

This long series of figures seemed to indicate that a period of continuous improvement covering two decades had culminated about 1900 and had been brought to an end about that time.

The above figures compare all exports with all imports. For the full justification of my remark, however, it would be better to compare exported manufactures with imported food stuffs. The result, the general character of which is much the same as before, is as follows :

Volume of Manufactured Exports given for a Uniform Quantity of Food Imports.[2]

1881	132	1891	106	1901	95
1882	130	1892	112	1902	100
1883	128	1893	112	1903	100
1884	120	1894	107	1904	96
1885	114	1895	104	1905	99
1886	117	1896	106	1906	92
1887	116	1897	110	1907	92
1888	114	1898	111	1908	98
1889	116	1899	105	1909	104
1890	107	1900	93	1910	100

[1] To render the series continuous with Professor Bowley's I have modified the base year.

[2] Professor Bowley's tables for 1881 to 1902 distinguish "Imported Food and Tobacco," "Exported Textile Manufactures" and "Exported Metal

Here also we have a progressive improvement culminating in 1900, with no further improvement after that date and some signs of deterioration. Incidentally it is interesting to notice how decidedly the boom of 1906–7 turned the ratio of real interchange in our favour, and how equally decidedly the depression of 1908–9 turned it against us. Since, however, we are concerned here with the long-period trend, the total result of the table can be best summarised as follows:

Volume of Manufactured Exports given for a Uniform Quantity of Food Imports.

1881	132	1900	93
Decade ending 1890	110	Decade ending 1910	98
Decade ending 1900	107	1911	98

A table of this kind by itself cannot, of course, be regarded as conclusive. But some of the possible sources of error are not probable. For example, the prices of imported raw materials during the period under review suggest that, if these were eliminated from the prices of manufactures so as to give the net return to home manufacture, the force of the above table, whilst not much changed, would be increased rather than diminished.

Now from 1881 to 1900 there was certainly a great improvement in manufacturing technique. Thus not only did a unit of manufacture purchase more food, but it cost less labour. Not only so; as we shall see below, whilst we were producing at less real cost and selling at a better real price, we were also marketing a growing volume of goods. It was this fortunate combination of circumstances which made it possible for us to support a rapidly increasing number of workers at a somewhat improving standard of life. Between that time and the outbreak of war the situation may have been helped by some further improvement in manufacturing technique; and the volume of our trade was still increasing; but the other factor—the purchasing power of our manufactures—had ceased to help and seems from the above *data* to have begun to turn adverse. We were no longer able to sell more goods at a better price.

I claim, therefore, that the best evidence available supports

Products." I take the first of these categories as representing imported food, and the mean of the other two as representing manufactured exports. The Board of Trade tables for 1900–1911 deal separately with their usual categories of "Articles of Food, Drink and Tobacco," and "Articles Wholly or Mainly Manufactured."

the contention briefly stated by me in *The Economic Consequences of the Peace.* I was there speaking of the industrial countries of Western Europe, and suggested that, whereas "up to 1900 a unit of labour applied to industry yielded year by year a purchasing power over an increasing quantity of food, it is possible that about the year 1900 this process began to be reversed."

What evidence does Sir W. Beveridge produce to confute this? His facts fall into two groups. The first show that Europe as a whole produced 3 per cent. more wheat per head in 1910 than in 1900. His second show that the price of wheat rose less than that of other raw materials. Why he imagines that either of these facts confute my statement I cannot say. Let us consider them in turn.

Take first his figures of wheat production. Two tables are given, one of which includes and the other excludes Russia and Poland. The first shows some increase in the production of food grains per head in the decade 1900–1910 and no figures available for 1910–1920; the second shows a small decrease in the production of wheat and barley per head in the decade 1900–1910, compensated by an increase of rye and maize (which are not important articles of human food in this country) and a huge reduction all round in 1910–1920. I have the following observations to make:

(1) It is not obvious that his own table for "Western and Central Europe," taken at its face value, namely:

	1880	1890	1900	1910	1920
Yield of wheat (bushels) per head .	3·93	3·97	4·16	4·13	3·10

confutes my suggestion that the year 1900 marked a turning-point. Indeed it might be held by some to confirm it.

(2) He has, however, included in "Western and Central Europe" the agricultural countries of South-Eastern Europe—Roumania, Hungary, Jugo-Slavia and Bulgaria. The inclusion of these countries vitiates an argument concerned with the situation of the industrial communities of Western Europe. "More surprising still," Sir W. Beveridge concludes this passage, "everyone but four (Belgium, France, Holland and the United Kingdom) shows an increase of wheat per head of total population in the decade (1900–1910)." But are not these four (together with Germany) precisely the countries we were talking about?

(3) Even if his facts were correct, they are not relevant to my contention about the ratio of real exchange between agriculture and industry; and, anyhow, it would be rash

to treat them as an indication of progress without examining the attendant circumstances. If, for example, the wheat grown in Great Britain per head were at the present stage in our economic development to show a considerable increase, it might well indicate a serious deterioration in our prosperity; for it might mean that as a result of hostile tariffs or other causes we were no longer able to obtain food on favourable terms in exchange for our manufactured exports and were being driven, as a last resort, to grow an increased quantity of food for ourselves.

Take next Sir W. Beveridge's tables of prices. Since these relate almost wholly to raw materials, and mainly to imported raw materials, I do not know what relevance he thinks that they possess to my statement about the relative values of imported food and exported manufactures. He seems half aware that they are irrelevant, and goes on to give other reasons for supposing *à priori* that, *if* his figures had related to exported manufactures, they would have supported his conclusion. But he seems to have clean forgotten the existence of the Board of Trade estimates, published year by year, of the very thing under discussion,—although the figures must, of course, be familiar to him in other connections.

II

Since Sir W. Beveridge's criticisms have caused me to recur to the subject of my inquiries of 1912, it may be of interest that I should now bring these inquiries up to date.

The Board of Trade continued to publish comparable figures for the years up to 1916 (though 1913 was the last year to be dealt with in a comprehensive white paper). For the years 1917 and 1918 the conditions under which our foreign trade was carried on rendered comparisons impossible, and no returns were compiled. Since 1919 the figures have been published quarterly in the Board of Trade Journal.[1] Reducing these official figures to the same form as in the table given above (p. 477), we have the following result:

Volume of Manufactured Exports given for a Uniform Quantity of Food Imports.

1912	102	1915	118	1918	—	1921	73
1913	97	1916	118	1919	91	1922	77
1914	105	1917	—	1920	82	1923 (for 9 months)	80

[1] Up to and including 1922 the figures have been calculated in respect of 1913 as the base year. In 1923 the Board of Trade has returned to its pre-war (and preferable) technique of the "chain-method" by which each year is calculated by reference to the immediately preceding year.

It appears, therefore, that up to the outbreak of war, and also during the war years, the state of affairs, which dates from about 1900, was maintained, the table, repeated in terms of ten-year averages,[1] being as follows :

Volume of Manufactured Exports given for a Uniform Quantity of Food Imports.

Decade ending 1890	119	Decade ending 1899	108	Decade ending 1908	97
,, ,, 1891	117	,, ,, 1900	107	,, ,, 1909	97
,, ,, 1892	115	,, ,, 1901	105	,, ,, 1910	98
,, ,, 1893	113	,, ,, 1902	104	,, ,, 1911	98
,, ,, 1894	112	,, ,, 1903	103	,, ,, 1912	98
,, ,, 1895	111	,, ,, 1904	102	,, ,, 1913	98
,, ,, 1896	110	,, ,, 1905	101	,, ,, 1914	99
,, ,, 1897	109	,, ,, 1906	100	,, ,, 1915	100
,, ,, 1898	109	,, ,, 1907	98	,, ,, 1916	101

This table shows that the uninterrupted improvement, which had been proceeding at a steady rate for a quarter of a century up to the decade (ending 1907–8) of which the middle year is 1903, came to an end at about that date.

In the light of this more extended table, my former generalisation should be modified by placing the turning-point at 1903 rather than at 1900 (the figures of the period 1899-1903 being much upset for purposes of comparison by the South African War and by the boom and the subsequent depression within that period), and by emphasising more decidedly the cessation of improvement and less decidedly the extent of the actual deterioration between that date and the outbreak of war.

What is the situation as regards the post-war years? They show that my original generalisation was open to the criticism that by dealing solely with the *ratio* of real exchange without reference to the *volume* of trade it might be misleading. The figures quoted above for the pre-war years, taken by themselves, indicate, paradoxically, a vast improvement, even if we allow for a disturbance of the figures, as on previous occasions, by the boom of 1920[2] in proportion to the magnitude of the boom. A closer examination, however, shows that the improvement in real price has only been obtained at the expense of a disastrous falling off in volume. My generalisation would have been more accurately

[1] Ten-year averages are successful on the whole in eliminating the very disturbing influence on these tables of the periodic booms and depressions.

[2] These tables show that with great regularity this country obtains a better *real* price than usual for its manufactured exports during a boom. To this extent the greater prosperity of industrial countries during a boom seems to be at the expense of the agricultural countries.

stated:—"We are no longer able to sell a growing volume of manufactured goods (or a volume increasing in proportion to population) at a better real price in terms of food."

The figures of the volume of trade for earlier years can be found in Professor Bowley's Memorandum (*loc. cit.*). Those for the years since 1900 (omitting the war years) are as follows in percentages of the volume in 1900:

	Total net Imports.	Food Imports.	Total British Exports.	Manufactured Exports.
1900	100·0	100·0	100·0	100·0
1901	102·1	102·4	101·0	100·8
1902	105·3	103·2	107·2	107·1
1903	106·2	106·9	110·1	109·8
1904	107·4	107·5	112·5	111·4
1905	108·4	104·3	123·6	123·6
1906	111·6	108·0	132·9	131·5
1907	113·1	107·5	143·6	140·9
1908	108·9	106·3	132·2	127·1
1909	111·9	105·2	137·8	131·7
1910	114·1	105·3	150·3	145·7
1911	117·6	108·7	155·7	150·8
1912	126·6	109·3	164·3	158·7
1913	131·2	115·6	170·8	164·6
1919	118·1	110·6	93·8	92·8
1920	115·5	99·8	121·1	125·9
1921	96·4	104·7	85·1	83·6
1922	113·5	114·6	117·7	109·5
1923 (9 months)	127·3	130·8	132·3	121·4

Broadly speaking, the volume of our manufactured exports has gone back to what it was about twenty years previously. Meanwhile the volume of our food imports has maintained a steady increase to a figure about 15 per cent. above what it was twenty years ago, roughly corresponding to the increase of population.

Thus the improved prices of our manufactured exports, measured in terms of food imports, has compensated to a considerable extent, but by no means completely for the falling off in volume. Off-setting the one thing against the other, our manufactured exports are now buying *in the aggregate* about 12 per cent. less food stuffs than before the war.[1]

Looked at another way, since the war we have been asking

[1] Triennial averages (*e.g.* 1912 = averages of 1911, 1912, 1913) of amount of food imports purchased by the aggregate of our manufactured exports (1912 = 100):

Pre-war.		Post-war.	
1910 . . .	89	1920 . . .	77
1911 . . .	95	1921 . . .	86
1912 . . .	100	1922 . . .	85

for our exports (in round figures) a real price (*i. e.* in terms of food imports) 20 per cent. higher than before the war and have been selling 30 per cent. less in quantity. In the slump year 1921 we were asking a real price 35 per cent. higher than in 1913 and were selling in volume 50 per cent. less.

These figures suggest interesting reflections as to the elasticity of the world's demand for our manufactures in terms of food stuffs. It looks on the face of it as though we are asking too much for our exports, and will have to ask less if we are to sell enough to pay for our necessary imports. But the post-war conditions of world markets are so materially different from pre-war conditions, that we cannot safely infer from the above figures by how much we shall have to lower our (real) prices for what we produce in order to find an outlet for a sufficient quantity of goods. We are bound to hope—and have reasonable grounds to hope—that the demand for our goods is elastic, *i. e.* that if we lower our (real) price the demand will increase *more* than in proportion. But I see no grounds for the expectation that we can obtain a (real) price a great deal higher (which we are asking at present) than the pre-war price for the pre-war volume of sales.

The following is an illustration of the way in which equilibrium might be restored. Food prices (in terms of money) might rise 20 per cent., money wages might rise 10 per cent., other manufacturing costs might be reduced (with a larger output and more efficiency) sufficiently to compensate the rise of money wages, thus leaving the money-price of manufactures unchanged;[1] our real price for manufactured exports would then have returned to its pre-war level and this might encourage a sufficient increase in their volume to absorb an important proportion of our unemployed. But it must be observed that in this illustration the result would have been achieved at the cost of a reduction in real wages.

Arguments and figures such as I have been dealing with here can never do more than suggest conclusions,—they cannot prove them. But they do certainly suggest—in the absence of other indications to the contrary—that we could maintain a higher standard of life if we had fewer to employ and to feed, and that

[1] I have neglected throughout the cost of the imported raw materials entering with our manufactured goods, because, so far as I can judge, their price has risen less than the price of the manufactured goods; so that if accurate account had been taken of this factor, my argument would not have been weakened. But this matter deserves a more exact examination than I have been able to give it in this article.

the more we have to force the volume of our trade (especially in existing conditions) the worse terms do we get. Numbers are already, if this is true, inimical to standards of life.

One more table of the ratio of real interchange, looked at this time from the standpoint of the New World, is worth giving. The Federal Reserve Board of the United States has published during the past year a monthly table of the price index of different classes of commodities as follows:

(1913 = 100.)

	Goods Produced.	Goods Imported.	Goods Exported.	Raw Materials.	Producers' Goods.	Consumers' Goods.	All Commodities
1922.							
July	162	128	165	177	143	163	165
Oct.	161	135	163	179	150	156	165
1923.							
Jan.	162	139	180	182	150	156	165
April	173	156	186	181	169	158	170
May	170	155	179	176	167	158	167
June	167	148	182	171	164	157	164
July	163	141	170	163	160	155	159
Aug.	163	137	166	162	158	157	159
Sept.	167	145	176	167	160	162	163

This table shows that of the three classes of goods produced and consumed within the United States—raw materials, producers' goods and consumers' goods—the increase of price since 1913 has been greatest in raw materials, although the disparity has been diminishing lately. But the big divergence is between the price changes in imported goods and those in exported goods. In order to pay for a given volume of imports the United States does not have to export, it seems, more than 80–85 per cent. of what it had to export before the war. In other words, the ratio of real interchange has moved some 15 per cent. in favour of the United States and against the rest of the world.[1]

I do not wish at the present stage to draw any certain conclusions from the figures set forth in this section. But the indications are not optimistic. Sir W. Beveridge and I do not disagree about the disturbing possibilities of the present state of affairs.

III

Finally, I must emphasise strongly, what is perhaps obvious,—that conclusions as to the actual or impending over-population of the older countries do not stand or fall with the particular

[1] If we compare goods imported with goods produced, the change amounts to 10 per cent., which might be the safer figure to take.

point of detail here discussed. This is only one item in a vast field of evidence and argument. I complain, therefore, that Sir W. Beveridge should convey the impression that his criticisms, even if they were better founded than they are, would dispose of Malthus' Devil. Sir W. Beveridge seems to speak with two voices. It is on grounds which are flimsy and inadequate to the magnitude and significance of the subject (if he intends them to apply to the whole great issue) that he asserts: "Mr. Keynes' fears seem not merely unnecessary but baseless." Yet the outside world has not heard with the same distinctness the other voice, which says later on: "The last thing I wish is to over-emphasise points of disagreement with Mr. Keynes. . . . Nothing that I have said discredits the fundamental principal of Malthus, reinforced as it can be by the teachings of modern science."

I offer Sir W. Beveridge the following few samples from the collections of the press-cutting agency, to show what the outside world thinks that he has said:

The Guardian.—"At the British Association Sir William Beveridge effectively laid the bogey and convinced most of us that there are no grounds for Malthusian pessimism."

The Month :—"The bogey of an overcrowded earth, first raised by the short-sighted Malthus, and eagerly exploited by eugenists as a means of overcoming the abhorrence with which all decent people regard abuse of the marriage function, was effectively laid by the Director of the London School of Economics. . . . We hope that our Government will follow, however belatedly, the example of France and America in making such publications (relating to contraceptives) a criminal offence."

The New Age :—"No; we really shall not be able to take Malthus seriously until we see people starving with money in their pockets. . . . There is only one famine to fear; and that is a money famine."

Daily Mail :—"Sir William said there was no ground for Malthusian pessimism. Enormous areas of the world fit for cultivation were not yet cultivated, and in other areas only the surface had been scratched."

Liverpool Post :—"It is surely obvious that the great and deplorable mass of unemployment in the country at present has no direct connection with the number of the inhabitants."

Mr. C. F. G. Masterman (in numerous organs of the provincial

press) :—" Sir William Beveridge, by the substitution of scientific investigation for theory, has blown into pieces the assertion that England is over-populated, or that Europe is over-populated, or that population is growing in excess of the development of food supply, or that the present unemployment in this country is in any way due to over-population."

New Statesman :—" There is no evidence whatever of which we are aware, or which Mr. Keynes or any other Malthusian has yet produced, to show that those limits (to the number of human beings who can find means of sustaining life) are being approached or are even likely to be approached for centuries to come. . . . Economic and statistical science offer no ground whatever for what Sir William calls 'Malthusian pessimism, . . . Sir William Beveridge's demonstration that the 'over-population' bogey is moonshine is a most valuable and timely piece of work."

Sir William Beveridge has given to ignorance and prejudice the shelter of his name. Can I not with these cuttings make him a little uneasy ?

J. M. KEYNES

WOMEN'S WAGES IN RELATION TO ECONOMIC WELFARE [1]

A PRECEDING inquiry was directed to the question what relation between the wages of men and women is most conducive to production of wealth in the narrower sense of that term.[2] In this sequel there is substituted for *wealth* a higher aim, *economic welfare*. Welfare is related to wealth as inward feeling to outward means. Economic welfare is distinguished from other kinds of happiness in that it depends more on external means, enters easily into relation with the measuring rod of money, as Professor Pigou defines (*ante*, § 2).[3] As a property of this essential difference it seems that propositions respecting economic welfare possess one characteristic of positive science, general consent, in a greater degree than beliefs concerning higher kinds of well-being. There is more agreement about the conditions of material prosperity than about the first principles of ethics and politics.

A distinctive feature of welfare which especially concerns us here is the postulate that the satisfactions felt by different persons admit of comparison. It thus becomes possible to consider the aggregate economic welfare of a community as the sum of satisfactions enjoyed by the individual members. By the law of diminishing utility the addition of wealth to those who have already abundance tends to increase the aggregate welfare less than if the same amount of means were applied to the relief of pressing wants. Accordingly, if the wealth of a community is increased or diminished, the gain or loss of aggregate welfare depends not only on the amount of wealth added or subtracted, but also on the distribution of the benefits or privations among the members of the community. The negative case of this proposition forms the basis of a now generally accepted principle of taxation. If a given amount is to be raised by taxation, the

[1] Read before Section F of the British Association, 1923.

[2] See article on "Equal Pay to Men and Women for Equal Work" in the ECONOMIC JOURNAL, December, 1922.

[3] The references of this type are to the previous article in the ECONOMIC JOURNAL, December, 1922.

burden should be distributed among the contributors in such wise that the aggregate sacrifice incurred may be a minimum.[1]

The only question is whether we should stop at the amount of revenue required for the public services, or whether taxation should be applied beyond this limit for the express purpose of equalising incomes. There are those who think that such equalisation would be theoretically *per se* desirable, and are deterred only by the consideration that production would be discouraged. It is as if a force tending to cause movement in a certain direction is held in check by an opposite force. Then, if the counteracting force is lessened, the ever-present tendency will spring into action. Upon this principle it was forcibly argued in the year 1916 that the burden of "special taxes levied on an exceptional occasion for the purpose of financing an unprecedented war" should be distributed with less regard than usual to counteracting considerations.[2]

Similar statements would hold good if taxes consisted of services exacted for the benefit of the State. For the analogy between taxation and *corvée* is very close. Quite philosophically the taxes collected for the kings of ancient Egypt were named "labour."[3] So on the supposition that imposts were exacted in the form of work, as pointed out by Sir Josiah Stamp, more would be expected from the more powerful man.[4] *Prima facie* the principle should be applicable, beyond the sphere of public services, to the distribution of labour and remuneration in general. It would seem to follow that if one class is less capable of work than another, but equally capable of enjoyment, the former class shall do less work, but enjoy equal remuneration. But of course such an arrangement would be impracticable. The numbers of the less capable class would increase to the detriment of production. The survival of the inefficient would be encouraged. These results would not equally follow if the privileged class consisted of the weaker sex. *Prima facie* the case would resemble one just now instanced in that first principles spring into action, counteracting considerations being withdrawn. It would seem to be opportune to discuss and apply a problem which Mr. and

[1] Cp. Cannan: "Minium aggregate sacrifice in the long run is the principle which all good ministers of finance and Parliament endeavour to the best of their abilities (often poor) to adopt. Under its ample folds equity, ability, benefit, and all other good things drop into their proper places."—ECONOMIC JOURNAL, 1921, p. 350.

[2] Pigou, *Economy and Finance of the War*, referred to in the ECONOMIC JOURNAL, 1916, p. 227.

[3] Breasted, *History of Ancient Egypt*.

[4] *Fundamental Principles of Taxation*, 1919, p. 8.

Mrs. Webb cite as interesting.[1] Whereas on a certain slave plantation equal tasks were imposed on men and women, the latter accordingly, in consequence of their comparative weakness, suffering much more fatigue; supposing the employer to insist only on a certain quantity of work being done, and to leave the distribution of the burden to the philanthropist, what would be the most beneficent arrangement?[2] But a regime so socialistic is not here contemplated. It is supposed that the forces of competition can only be slightly modified by combination. It is not proposed to defy the ruling of competition. But, as pointed out before (*ante*, § 10), the determinations effected by competition are often not minutely graduated. It is as if the *integers* of economic quantities that are in dispute were determined by the play of competition; while the *fractions* are left to be settled by collective bargaining and utilitarian considerations (*ante*, § 10). Even as regards the integers, if one or two units are changed in the interest of one set of workers, no appreciable economic loss to the community is

[1] *Industrial Democracy*, p. 505, ed. 1902.

[2] Let X be the amount of work to be done by the average man, and x the corresponding task of the woman; where $X + x$ is given, the numbers of the sexes being supposed equal. Let $F(X)$ represent the disutility experienced by the average man doing the amount of work denoted by X; where $F'(X)$ and $F''(X)$ are both continually positive. And let $f(x)$ likewise represent the analogous subjective quantity for the woman. Then the sum-total of disutility, $F(X) + f(x)$ is to be a minimum; *subject to the condition* that $X + x =$ constant. Whence $F'(X) = f'(x)$. Now let it be granted that for any quantity z (of the order of the quantities X and x with which we have to do), $f(z) > F(z)$, and also ($f(z) - F(z)$ continually increasing) $f'(z) > F'(z)$. Then when $F'(X) = f'(x)$, X must be greater than x.

To adapt this reasoning to the distribution of work and produce in an ideal community regulated according to utilitarian (or as some may prefer to say, socialistic) principles; let X denote the amount of goods produced by the average man—amount measured in money or some even more appropriate index; and let Ξ be the portion of goods assigned for his consumption. Let the corresponding quantities for women be x and ξ. Then, if N is the number of the men, n of the women, $NX + nx = N\Xi + n\xi$. Let $F(X)$ be the disutility accruing to the man from the production of X; and let $f(x)$ be the corresponding expression for the woman worker. Also let Φ (Ξ) be the satisfaction accruing to the average man from the consumption of goods amounting to Ξ $(\Phi' > O,\ \Phi'' < O)$ and let the corresponding expression for the women be ϕ (ξ). There is then to be maximised the sum-total of welfare $N\Phi((\Xi) - F(X)) + n(\phi(\xi) - f(x)$; *subject to the condition* $N\Xi + n\xi = NX + nx$. Whence $F'(X) = f'(x) = \Phi'(\Xi) = \phi'(\xi)$. Now let it be granted that, as before, for any quantity z (of the order of the quantities with which we have to do) $f(z) > F'(z)$; while there is no corresponding datum with respect to the quantities and functions designated by the Greek symbols. Then it follows, as before, that X shall be greater than x. It does not follow that Ξ (the man's portion of goods) should be greater than (the woman's) ξ; it being understood that there is not deducted from Ξ any special charge for the support of families (or other public purpose).

to be apprehended. For the economic equilibrium which is determined by competition may be considered as realising the *maximum* of advantage (attainable in the existing state of things). So by the theory of maxima a slight modification of the arrangements which secure maximum advantage will be attended with only a *very slight* diminution of the total advantage (*ante*, § 8). There would not be an appreciable loss *in globo*, but a transference conducive to economic welfare.

But the gain to the women-workers would not always involve an equal loss to the men. For many of the concessions demanded would consist of increased facilities for work; and so would result in an increase of the wealth to be distributed (*ante*, § 19). The war has shown that there is much room for improvement in this direction. We read of "processes which by some reorganisation, or the introduction of labour-saving appliances, could be made suitable for them" (women). The difficulty of employing women on heavy work may often be got over by mechanical means—"lifting tackle, trolleys, runways for bogies, lighter tools and trucks," and so on. "There would appear to be a fairly large new field of possible activity for women." [1] Arrangements to suit those who cannot work many hours may be foreseen. The removal of hindrances to the entrance of employments and to the training required for their exercise has already been claimed as conducive to wealth (*ante*, § 9). On the ground of economic welfare it is now further demanded that women-workers should at least have the benefit of any doubt that may arise with regard to the apportionment of industries between the sexes (*ante*, § 12) If in effect, however masked by the wording of awards and agreements, there comes in an element of chance in determinations about work and wages—as Dido apportioned the labour of her workpeople not simply by just partition, but also by drawing lots [2]—let us weight the chances somewhat in favour of the weaker sex.

These concessions may be demanded and granted without indulging the fantastic sentiments of Don Quixote, without accepting Michelet's old-fashioned objection to the employment of women in industry: "L'ouvrière mot impie et sordide!" [3] There would be demanded only a little more than Francis Walker

[1] *Memorandum on Substitution of Women in Non-Munition Factories.* Home Office, 1919.

[2] "Operumque laborem
Partibus æquabat justis, aut sorte trahebat."
Æneid, 1, 507–8.

[3] *La Femme*, ch. 2.

claims in his eminently sane observations upon women's wages.[1] Impressed with the advantages of free competition he demands "mobility" for women-workers, free access to the labour market to which they have been driven by the changed conditions of production.

Walker enforces this claim by appealing to the well-known chivalry of American men. And certainly if chivalry in the general sense of knightly virtue has been shown by another great economist to be compatible with modern industry,[2] why whould not this be true also of chivalry in that special sense which was the crown and glory of the knightly character? Yet here appeal is not made to so refined a motive. For economic welfare is considered as depending on characteristics of human nature that are very general, almost as universal—and so nearly as amenable to scientific treatment—as the motives commonly ascribed to the "economic man." It is hardly consistent with this definition to include a sentiment which is far from universal, not common to the Eastern or the ancient civilisations. To secure the validity of our conclusions there is not postulated any particular code of manners and customs. It is not necessary to dispute the views of Mr. Belfort Bax, who in his unpleasant book, *Frauds of Feminism*, complains that "women are iniquitously privileged at the expense of men"; denounces the rule of the sea, that the women should have priority of exit from a sinking ship, as "an abominable piece of sex favouritism," which "cries aloud in its irrational injustice." Nor, on the other hand, need we accept the Comtist doctrine that female relatives have a claim to be supported by the men of their household on the analogy of priests and magistrates "maintained by those for whom their lives are devoted."[3] The premises of our argument are more general, containing more of the *quod semper, quod ubique;* such as the laws of diminishing utility and increasing fatigue, the fact of unequal capacities—differences in the relation between work done and fatigue felt.

Nevertheless it is not irrelevant to the argument that its practical conclusions are in harmony with the manners of Christendom. If most Englishmen and many other men regard as detestable opinions of the kind professed by Belfort Bax, this is a fact favourable to the application of our reasoning. Consider

[1] *The Wages Question*, p. 381 and context.

[2] Marshall, "The Social Possibilities of Economic Chivalry," ECONOMIC JOURNAL, Vol. XVII (1907).

[3] Cp. Frederic Harrison, *Realities and Ideals.*

the opinion of a late Lord Chancellor which Mr. Bax quotes with disapprobation, the dictum that "our laws taken as a whole are more merciful to women than to men, and are more mercifully administered." If this discrimination is generally approved, there may be presumed a predisposition to admit a similar discrimination with respect to the laws of political economy. But the tendency is held in check by the supposed rigidity of those laws, by the conception of competition as necessary and beneficent. It is, therefore, not without consequence to point out that some discrimination of the slight yet appreciable degree which is admitted in the sphere of law is possible in the sphere of industry. The supposed predisposition would secure a response to Walker's appeal for the removal of obstructions. It would secure attention to the subtler arguments which are based on the "elasticity of the demand for labour" and the nature of economic equilibrium (*ante*, § 19 and § 8). There would at least be rendered more gentle that jostle of competition from which Frederic Harrison apprehended that "the great majority of men and women would sink into the relative position of big and little boys at school." [1] Why should not the relation be, rather, like that of the young men and maidens at our Universities who compete in work tested by examinations without being related as fag and bully? May not Competition in industry, tempered by Combination (*ante*, § 10) work equally smoothly? Altogether, under the favourable conditions supposed—the action of reason quickened by a predisposing sentiment—the pursuit of economic welfare may avert the reproach conveyed in Burke's tremendous words: "The age of chivalry is gone. That of sophisters, economists, and calculators has succeeded; and the glory of Europe is extinguished for ever." [2] Rather, the economists, if aiming at economic welfare, the sophisters and calculators, if so named because, in accordance with the utilitarian philosophy, they seek to calculate the course that is conducive to the greatest quantity of happiness, will cultivate a certain species of chivalry, wanting, it may be, the glory of the older virtue, but still a precious element of civilisation. It might not be so dearly prized as its romantic prototype by those who form its object, in benefiting whom consists its virtue; but the benefit would be more widely diffused, less confined to aristocratic circles.

The concessions now advised on the ground of economic welfare, unlike those before admitted (*ante*, § 16 *et seq.*), are not based on the incidents of family life. The fresh considerations,

[1] *Op. cit.* [2] *Reflections on the French Revolution.*

however, do not contravene those admissions; the concessions advocated, not being on such a scale as seriously to alter the balance between the wage of spinsters and that of married men to the detriment of families.

In this part of the subject not only is the present sequel in keeping with, but it also lends support to, the preceding argument. It will be remembered that the presumption in favour of equal pay to men and women encountered the objection that the bulk of men are subject to a charge from which the bulk of women are exempt, the support of families (*ante*, §§ 16–18). This circumstance much weakens the force of appeals to the justice which is inherent in *laissez-faire*, the "system of natural liberty." [1] The case for equal pay is not so strong as it has been represented by ardent champions of woman's rights, Olive Schreiner for example in passages like the following: "The fact that for equal work equally well performed by a man and a woman it is ordained that the woman on the ground of her sex alone shall receive a less recompense is the nearest approach to a wilful and unqualified 'wrong' in the whole relations of women to Society to-day. . . . That males of enlightenment and equity can for an hour tolerate the existence of this inequality has seemed to me always incomprehensible." [2] There is certainly a "wrong" of the kind which consists in the infraction of *laissez-faire*. But it is not "unqualified" in so far as it is calculated to correct another sort of wrong. If with equal pay for equal work one of the parties is to be subject to unequal deductions from his pay; it seems not unreasonable that the said party should have some advantage in the Labour Market (*ante*, § 18 par 1). Moreover, those barriers against the entrance of women workers into certain occupations which are the main cause of different remuneration for the same effort appear to subserve the purpose of preventing the *débâcle*, ultimately ruinous alike to wealth and family life, which the hasty substitution of low-paid female operatives for well-paid men threatens to bring about (*ante*, § 5). Accordingly the case for unrestricted competition, without any provision for the endowment of families, is not so strong as it has been represented by advocates of equal pay. Even with such provision as recommended in the preceding article the case is not so strong but that it may be strengthened by the considerations adduced in the sequel. The man who is hesitating between the older policy of exclusion and greater freedom of competition (safe-guarded by subsidy to families) is exhorted

[1] *Wealth of Nations*, Book IV. [2] Introduction, p. 24.

to give the benefit of the doubt to the course which makes for the higher remuneration and larger independence of the woman worker. To thwart her wishes and degrade her status would not be consistent with economic chivalry.

Altogether these considerations are calculated to strengthen the reasons before given for some sort of subsidy to mothers of families, whether on the part of the State or of unmarried fellow-workmen (*ante*, § 21). Such are the institution of family allocations which, as described in the publications of the Family Endowment Council, are coming into vogue in France and other countries; and the kindred German arrangements which are described by Dr. Heimann in this issue of the ECONOMIC JOURNAL.[1] If there could be a doubt whether, in case of a money subsidy being granted, it should be paid into the hands of the mother, the preceding considerations would be decisive in her favour.

But while the arguments in favour of family endowment are strengthened, the objections to its injudicious use are nowise weakened. The reader is requested to consider carefully the long list of disadvantages and dangers enumerated in the preceding paper (*ante*, § 20). It is true that all those objections would not attend all schemes of State support. In particular the evil effects on the future of population are not to be attributed to all such schemes. Thus Professor Pearson in his original and outspoken *Ethic of Free Thought*, while recommending the support of mothers by the State or Commune, seems only to guarantee that support in case of births sanctioned by the authorities.[2] Mr. H. G. Wells, too, accompanies his drastic provisions for the State support of mothers with State regulation of births.[3] But it may be doubted whether this platonic regulation will in practice be embodied in schemes for the endowment of motherhood. Consideration for the quantity and quality of population cannot be counted on. Nor, even if it could be, would it secure the wealth and welfare of a people dependent on the State for the support of families. It is a fearfully rash assumption that, because each man now generally works hard for the sake of his own wife and children, all men will work equally hard for all wives and children collectively.

The danger of this assumption is by no means confined to the

[1] p. 509 below. Cp. Douglas on "The Project of Child-Endowment in Australia," *Quarterly Journal of Economics*, August, 1923. See also *Revue de Travail*, Belgium, May, 1923.

[2] *Op. cit.*, p. 443 *et seq.*, ed. 1. [3] *Socialism and the Family.*

common Socialist intent upon material gains. The main facts of life are even more easily forgotten by the idealist. The Swedish sentimentalist, Ellen Key, for instance, expects that when a "profounder culture" becomes prevalent "it will seem as natural for society to maintain its women as it was natural to maintain its army and navy." They will receive a "subsidy from the community for the bringing up of children," "the economic appreciation of her (their) domestic work." They will thus be free to cultivate a "soulful sensuousness or sensuous soulfulness"; in accordance with "a new morality." [1] Naturally conditions of wealth and economic welfare are not considered by reformers intent upon some object of a higher or at least a different order. The greatest of such innovators has characterised his proposal in terms which may be cited as quaintly expressing the spirit in which the economist at least should *not* approach such matters. Milton, when, galled by the yoke of an ill-assorted marriage, he proposed as a remedy for marital troubles freedom of divorce, thus reflected complacently on that proposal: "I doubt not but with one gentle stroking to wipe away ten thousand tears out of the life of man." [2] But the economist, remembering how often the appearance of easy remedies for human ills, in his sphere at least, has proved deceptive, will not expect much from a stroke, gentle or violent, intended to revolutionise established institutions which have worked well for the production of wealth and economic welfare. The only reforms of such institutions which the economist can approve are tentative and gradual.

[1] *Love and Ethics*, p. 54. *Love and Marriage*, p. 20, ch. xi. Cp. *The Woman Worker*, ch. vi.

[2] *Doctrine and Discipline of Divorce*, second edition.

F. Y. EDGEWORTH

RUSSIA'S CURRENT MONETARY PROBLEMS

THE monetary policy of the Soviet Government during the so-called "period of militant Communism," that is, up to the spring of 1921, was mainly determined by the straightforward application of the extreme Marxian doctrine, which looked upon money as the most subtle instrument of exploitation in the hands of the capitalists. In accordance with this theoretical view, the Soviet Government originally aimed at the complete abolition of money in the generally accepted sense of this term, and at the introduction in its stead of the "labour standard," in strict conformity to the Marxian theory of value. Under this system, values would be measured in units of working time of a given intensity, on the basis of elaborate reduction formulæ, and the actual currency would consist of notes or certificates representing a certain amount of work done by the holder in terms of "labour units" called "treds," and entitling him to an equivalent in other people's products. In its essence the scheme was not a new one in the history of Socialism, and to the English mind it is certain to recall the short-lived "labour notes" commonly associated with the name of Robert Owen. In 1919 and 1920 attempts were even made to introduce the "labour standard" into practice, but, not unnaturally, they proved an utter failure and were abandoned in the experimental stage. So long, however, as these ideas were adhered to, the actual currency was looked upon as doomed to destruction, and its rapid depreciation, far from causing apprehension among the Communist leaders, was rather welcomed by them, since it brought about the final extinction of what was still left of the former capitalists' wealth and power.

The value of the paper rouble was, indeed, falling very rapidly throughout this period, under the combined pressure of inflation, on the one hand, and of the growing scarcity of goods on the market, on the other. Having heavily burdened its Budget with unproductive nationalised industries and assumed the enormous commitments involved in a thorough-going system of *étatisme*, the Soviet Government, even apart from all theoretical considerations urging it to destroy the existing currency, was actually unable

to check inflation. The latter, had it not been for the recent developments in Germany, would certainly have had no parallel in the whole history of the world.

The attempts to implant Communism in Russia having brought about a heavy fall in the output of all branches of production and all private trade having been prohibited, the demand of the market for media of exchange decreased enormously. The result was that the decline in the purchasing power of the rouble proceeded at a much faster rate than the increase in the amount of money in circulation. Accordingly, while the total stock of paper roubles in circulation was growing, its real value as expressed in its actual purchasing power, was rapidly decreasing. Reduced to pre-war roubles by means of index-numbers of prices, it varied approximately as follows : [1]

Date.	Notes in circulation in millions of paper roubles.	Real value of the total stock in millions of pre-war roubles.
January 1, 1913	27,312	1,177
„ 1919	61,264	266
„ 1920	225,016	65
„ 1921	1,168,600	44

These calculations, made by the Institute for the Study of the Market, attached to the Commissariat of Finance, though they do not pretend at anything like absolute accuracy, are, however, sufficient to show the extent to which the economic activities of the country were reduced and her currency depreciated. Fresh issues of notes under such conditions could no more be used as a means of meeting the expenditure of the State.

The utter failure of the attempt to effect the immediate reorganisation of the whole social and economic system of Russia on Communistic principles was recognised by the Soviet Government in the beginning of the year 1921, by which time it became absolutely clear that the policy has got to be changed so as to permit production to be restored and new sources of revenue created.

It is beyond the scope of this article to describe the measures which came to be known as the New Economic Policy of the Soviet Government, but a brief outline of them should be given in order to make some of the aspects of the subject perfectly clear.

[1] Quoted from Prof. S. Prokopovitch, "The New Economic Policy," in the *Economitchesky Vestnik*, N. 1, 1923.

The assessments and requisitions of farm produce, which proved disastrous to cultivation, were abolished and a fixed food tax introduced instead, the peasants being permitted to dispose of the available surplus on the market. This necessarily involved the authorisation of private trade and thus opened the door to private enterprise. Permission to form private trading and industrial concerns soon followed, and certain hitherto nationalised factories, works and mines were offered for private exploitation in the form of leases and concessions. As a result of these measures, the Budget, on the one hand, was unburdened of the dead weight of some of the nationalised concerns, while, at the same time, a reduction in expenditure was achieved by a drastic curtailment of the staffs of Government institutions. On the other hand, by reintroducing both direct and indirect taxation it was hoped to increase the revenue as a result of the revival of enterprise. Thus, the New Economic Policy signified an important change and involved certain concessions to Capitalism as represented by private enterprise. Those concerns which remained under the direct control of the State were also thoroughly reorganised. The Government, representing the Communist State, reserved to itself the absolute control of the key-industries and of the most important concerns in many secondary branches of production, as well as of the railways and of foreign trade, thus assuring for itself the "commanding positions" in the economic system of Russia. These branches were also reorganised on what was referred to as "commercial principles" by combining the nationalised concerns into State trusts managed by appointed boards of directors and handing over their profits to the State. State trusts were permitted, while working partly on Government orders, to dispose of the rest of their production on the market.

Thus the whole organisation assumed the outward semblance of capitalistic conditions, while, within a limited sphere, it permitted genuine private initiative to be exercised. Communistic principles however, were adhered to in so far as the control by the Government of the key-industries and, through them, of the whole economic situation, was concerned.

An important feature of the New Economic Policy in its financial aspect was the return to the Budget system in State finance, which had been in abeyance throughout the period of militant Communism.

All these changes necessitated the restoration of stable currency and of credit facilities. Should the currency be permitted to

remain in its disorganised condition and should no new credit establishments be founded instead of those liquidated in 1918, all attempts to restore production and trade, to revive private enterprise, to collect taxes in money, to draw and to carry out Budget Estimates and, last but not least, to attract foreign capital to Russia, would certainly have been doomed to failure. On having engaged itself on this path, the Soviet Government was, accordingly, faced with the necessity of seriously tackling the difficult problem of the reconstruction of the currency and of the credit system of Russia.

Up to the end of 1921, however, the position in this respect remained unchanged. Industry and trade were left to thrive as best they could on rapidly inflated currency and without any credit facilities at their disposal.

The end of the year 1921 was marked by the first important step in the direction of reconstructing both these essential factors of economic activities. This step was the foundation, by the Decree of October 11th, 1921, of a new State Bank. Article 1 of the Statute of the Bank provided that, besides its other functions as a credit establishment, it was "called upon to concentrate under its control all monetary transactions and to carry out other measures aimed at the re-establishment of a regular system of currency." At the outset, however, the Bank started only on general banking business, while the reform of currency was relegated to the future and was actually begun only a year later.

Meanwhile the Government did also practically nothing to improve the currency, except that it made a change in the unit of account, called for by the extreme depreciation of the rouble. The change consisted in the introduction of the so-called "rouble of the 1922 pattern," equivalent to 10,000 roubles in notes of all previous issues. The change was merely a matter of convenience in reckoning and printing and involved no modifications in the principles on which the actual issue was based. In the course of the year the new notes, in their turn, were inflated to such an extent that they had to be again replaced by a fresh issue of "roubles of the 1923 pattern," equivalent to 100 roubles in 1922 notes. Notes of the previous issues also remained in circulation.

The progress of inflation during the year 1922 and part of 1923 is shown in the following table : [1]

[1] Figures for 1922 taken from the official *Economitcheskoie Obozrenie*, N. 2, Moscow, 1923, p. 77. Those for 1923 from the *Economitchesky Vestnik*, N. 2, p. 235, and from returns in the Soviet Press.

NOTES IN CIRCULATION, IN MILLIONS OF "1923" ROUBLES:

January 1, 1922	17·5	December 1, 1922	1584·2
February ,,	30·1	January 1, 1923	1994·5
March ,,	48·4	February ,,	2620·2
April ,,	81·2	March ,,	3236·6
May ,,	127·9	April ,,	4482·7
June ,,	213·6	May ,,	6076·0
July ,,	320·5	June ,,	7,051·5
August ,,	474·8	July ,,	9,032·4
September ,,	696·1	August ,,	12,456·6
October ,,	913·7	September ,,	15,193·0
November ,,	1247·8	October ,,	19,341·0

This is not surprising, since the Budget deficit for the first half of the current financial year reached 57·2 per cent. of the total, and that for the second half it is officially estimated at over one-half of the expenditure to be incurred.[1]

The depreciation of the rouble, although its rapidity was checked somewhat by the revival of trade and the reappearance of some merchandise on the market, was still proceeding by great strides, with the result that business had to be done without anything resembling a stable unit on which calculations could be based. The inconvenience involved in the absence of a stable standard of value is well illustrated by the experience of the State Bank during the first year of its work.

As originally constituted, the State Bank possessed a capital of 2,000,000 million Soviet roubles, and the whole of its business, which mainly consisted of loans and advances to concerns and included almost no deposits or other liabilities to the public, was done in terms of Soviet currency. Should the Bank deal in roubles at their face value, as with ordinary money, it would very soon have had to draw its shutters, since both its capital and its assets would have been reduced to nothing. To avoid losses it had, accordingly, to adapt itself to the continuous depreciation of the rouble. Even an extremely high rate of discount and advances, which was originally fixed at 8 to 12 per cent. per month, was not effective in preventing losses and had to be supplemented by other devices. As a result, the Bank developed the practice of trading operations and of financial participation in concerns, which transactions, strictly speaking, are outside the scope of purely banking business.[2]

The position of business concerns was also made extremely difficult by the absence of a stable monetary unit. In fact they

[1] Q.v. *Economitchesky Vestnik*, N. 2, p. 234.

[2] Q.v. Prof. A. Manuiloff, "The Capital of the State Bank and the Depreciation of the Rouble," and Prof. Z. Katzenelenbaum, "The Problems of the State Bank" in the *Problems of Banking Policy*, published by the State Bank, Moscow, 1922.

were scarcely able, at the close of the first year of their operations, to find out whether they had actually gained or lost. One of the most striking examples of such uncertainty mentioned in the Press was that of a large Moscow textile combine, the *Mossoukno*, which has tried to draw its Profit and Loss account in three different ways without arriving at definite results.[1] The matter was finally referred to a committee of expert accountants, but the experts' opinion was also inconclusive.

Practically the same was the position of the Government with regard to the drawing up of its Budget Estimates: there was no unit in which to make the necessary calculations.

Attempts have been made to supply this deficiency by introducing a theoretical unit in which values could be expressed irrespective of the fluctuations in the actual currency. The principle and the methods used in arriving at this theoretical unit were essentially the same as those recently used in Germany in reducing prices and wages to "gold" marks. By dividing the current prices by the index-number referred to 1913 prices as basis, coefficients were obtained for the reduction of present values in terms of Soviet roubles to what was called the "pre-war rouble," "commodity rouble" and many other names, but was essentially based on the same principle. The inadequacy of this conventional standard is evident, since, being based on index-numbers of prices, it cannot be more than a very rough approximation and entirely depends on the particular series used in its calculation. As averages of samples, index-numbers are generally subject to a large margin of error when applied to a particular case. They are especially unsatisfactory in this respect in Russia, under her present conditions which cause price variations to be extremely wide not only in time but in space also, the latter owing to the disorganisation of transport and the consequent isolation of local markets. Failing a better standard, the theoretical rouble has, however, been widely used in calculations, including the Budget Estimates. While it was so used, its inadequacy tended to emphasise the necessity of finding a different solution of the problem of a provisional standard of value, which would serve the needs of business pending the complete reconstruction of the currency. It was thought that this solution lay in the introduction of some real unit, based on the gold standard, which, being issued into circulation along with the Soviet rouble in accordance with the principles generally governing the issue of bank-notes, would find its real value in the market. This was

[1] Q.v. *Economitcheskaia Zhizn*, November 26, 1922.

precisely the consideration which determined the monetary policy of the Soviet Government after the foundation of the State Bank.

The idea of the introduction into circulation, along with the Soviet rouble, of some sort of bank-notes which, being based on the gold standard and effectively secured against depreciation, should eventually become the foundation of the new monetary system, dates from the establishment of the State Bank in 1921.[1] That some kind of transitional unit was necessary to permit Russia to tide over the difficulties of the initial period of her reconstruction was evident, since the general conditions of the country permitted neither the spontaneous transition of the market to metallic money, as was the case with France at the close of the Revolution, nor the stabilisation and eventual devaluation of the paper rouble. The reform had to be carried out in stages in any case, but it could be effected in one of the two following ways: either by the issue of special bank-notes into active circulation, or by the creation of a "banking" unit, which would be quoted in roubles and would possess a gold par, thus, on the one hand, bridging the gap between the paper rouble and foreign currencies and, on the other, preparing the basis for the future reform. The Soviet Government decided to adopt the first of these two courses.[2]

The idea of the transitional unit took definite shape and found practical application in the issue by the State Bank of *tchervonetz* bank-notes, in virtue of the decree of October 11th, 1922.

This decree authorised the issue by the State Bank of bank-notes in terms of a new unit—the gold *tchervonetz*—equivalent to the old ten roubles gold coin. The notes were to be covered by a reserve consisting to the extent of at least 25 per cent. of precious metals (not necessarily gold) and of stable foreign currencies *in natura*, or of drafts in such currencies; the balance of 75 per cent. could be covered by approved bills and documentary credits. Strict provisions were included to safeguard the bank-note against possible attempts on the part of the fisc to make abuse of its issue. Provisionally, pending the establishment of more favourable

[1] Q.v. V. Tarnovsky in *Problems of Banking Policy.*

[2] In view of the dangers involved in the adoption of the first of these two courses, the second was suggested and elaborated by the present writer, in an article on "The Problem of Currency Reconstruction in Russia," published in the *Russian Economist* in 1921. The scheme there suggested, however, was absolutely incompatible with the State monopoly of foreign trade, to which the Soviet Government still adheres as to one of its "commanding positions," and was entirely based on the proposition of a return to competitive conditions in the whole economic system of Russia.

conditions, the convertibility of the notes was, however, suspended. This was, certainly, unavoidable, seeing that the balance of trade was heavily adverse to Russia. Should convertibility be introduced under such conditions, the Bank would, naturally, have been quickly drained of its reserve, and the whole scheme would have collapsed.

The first issue of *tchervonetz* bank-notes was made in November 1922, and its further progress is recorded in the returns published by the Issue Department of the State Bank on the 1st and 16th of each month. Rates at which the *tchervonetz* is quoted in Soviet roubles, as well as its rates of exchange against the principal foreign currencies dealt in on the Russian market, are published daily in the Press.

The following is the return of the Issue Department published on November 1st, 1923:

RETURN OF THE ISSUE DEPARTMENT OF THE STATE BANK ON NOVEMBER 1ST, 1923.

Assets:		
1. *Metallic reserve:*		
(A) Gold coins and bullion	8,693,707·7	*tchervonetz*
(B) Silver coins and bullion	[illegible]2,99[illegible]·1	,,
2. *Foreign bank-notes*	4,00[illegible],905·1	,,
3. *Foreign drafts*	460,772·8	,,
4. *Tchervonetz bills discounted*	7,796,16[illegible]·3	,,
5. *Documentary credits*	4,568,450·0	,,
Total assets	25,600,000·0	*tchervonetz*
Liabilities:		
1. *Notes issued to the Banking Department*	25,450,000·0	*tchervonetz*
2. *Unused margin of the fiduciary issue*	150,000·0	,,
Total liabilities	25,600,000·0	*tchervonetz*

It is seen from the examination of this return, that in so far as the metallic and quasi-metallic part of the reserve is concerned, it amounts to over 50 per cent. of the total liability on the notes and is, thus, far in excess of the statutory ratio. Yet, the position of the *tchervonetz* bank-note is now, apparently, causing some anxiety in financial and business circles in Russia, the developments with regard to it having taken a decidedly unfavourable turn. It appears that events are following a course which an analysis of the economic situation permitted to predict in advance.

Being actually superimposed on the Soviet rouble and circulating along with the latter, the *tchervonetz* bank-note was originally designed not to replace the existing currency, but only to supplement it by fulfilling those functions for which the depreciated rouble was obviously unfitted. The Soviet rouble was, accordingly, to

remain the principal medium of exchange, while the *tchervonetz* was to become the standard of value and the instrument of investment and saving. At the beginning, when the quantity of *tchervonetz* bank-notes issued into circulation was comparatively small, things appeared to be shaping themselves in accordance with this scheme. Bank-notes were very seldom to be seen in active circulation, since practically the whole stock of them was hoarded or used only by banks and large business concerns for the investment of their available cash and for settlements with each other. Of late, however, the position has undergone a very important change. What is actually happening is this:—

It has been shown that up to 75 per cent. of the reserve held against the notes may consist of banking cover in the form of bills of exchange (the term including promissory notes) and of documentary credits. Under normal conditions and provided that these assets are genuine short-term paper, they would be considered "liquid" enough to afford adequate security for the notes and, should convertibility be suspended, as it actually is, to ensure the regular return of the notes to the bank, and thus to prevent their depreciation. But all systems of note issue aimed at achieving "elasticity" in the supply of media of exchange and, therefore, based on liquid commercial paper as their principal asset, depend for their stability on the smooth working of the entire mechanism of production and exchange, that is, on a condition which is notoriously non-existent in Russia at present. In Russia, where the combination of the elements of Communism and Capitalism necessarily involves much friction and waste in the economic system, the principle of "elasticity" is now proving to be dangerous for the stability and the prospects of the *tchervonetz* bank-note. Since the spring of 1922 the industry and trade of Russia, after a short outburst of activity following the inauguration of the New Economic Policy, have been affected by a chronic depression and are either carrying the bulk of their stocks on banking credits or, of late, trying to find outlets for their production in Eastern markets. The causes of the depression are manifold, but in the main they can be reduced to the extremely high figure of costs and to the great fall in the effective demand on the part of the market. Excessive taxation, coupled with exorbitant overhead charges due to the bureaucratic organisation of the key-industries and of all those services on which every concern necessarily depends, tend to make manufactured goods practically unmarketable. In spite of the very small volume of production, the crisis, far from abating, is growing worse, and the

Soviet Press is full of articles on this subject. The State Bank, on which devolves the duty of providing credit facilities to industry and trade, either direct or through the medium of other banks, was naturally called upon to help them out of their difficulties and, as a result, had to discount bills and grant advances which proved excessive in view of the lasting character of the depression. Meanwhile, bills having to be renewed on maturity and documentary credits being indefinitely tied up in unmarketable commodities, it is not unnatural that notes, on being issued into circulation, fail to return to the Bank, while industry and trade are urgently pressing for fresh advances.[1] The position of the State Bank in this respect is the more difficult, since 70 per cent. of its advances are made to industrial concerns and only 9 per cent. to trade, which latter generally provides all banks of issue with their best, that is, most liquid, assets.[2] As a result of this expansion of credit, the active circulation of *tchervonetz* bank-notes increased from 295,500 *tcherv.* on January 1st to 21,403,000 on October 1st, 1923.[3] In August last the real value of the total stock of *tchervonetz* bank-notes in circulation exceeded that of the Soviet roubles by over 20 per cent.; now it is more than twice as large as the latter.[4]

The consequences of this change it is easy to imagine. Although the *tchervonetz* is not yet the only currency of Russia and has not yet penetrated into the more remote parts of the country, according to the Soviet Press it is making rapid progress in this direction and is, consequently, well on the way of driving rouble notes out of circulation. There are already too many *tchervonetz* notes in the hands of the public for them to remain only a standard of value and an instrument of investment, and not to become a common medium of exchange as well. That this is really so is proved by the fact that during the period from January to September last the purchasing power of the *tchervonetz* on the home market fell 41 per cent.,[5] though its rates of exchange as against foreign currencies have been maintained. The support of the rates of exchange, however, is still a comparatively easy task, seeing that the transactions are very limited in amount and

[1] Q.v. *Economitcheskaia Zhizn*, N. 208, 1923, article by M. Vladimiroff, Deputy Commissar of Finance, on "The Bank-note and the Rise in Prices."

[2] *Ibid.*, N. 1, October 2, 1923, article on "Credit during the Last Year" (October 1922–September 1923), by S. Kiseleff.

[3] Q.v. A. Desen on "Credit Establishments in 1922 1923," *Econom. Zhizn*, N. 14, October 1923.

[4] Q.v. *Economitcheskaia Zhizn*, 1923, N. 221, article by A. Desen on the "Prospects of the Credit Policy."

[5] *Ibid.*, 1923, N. 208.

are entirely confined to Russian centres. This tendency on the part of the *tchervonetz* bank-notes to stick in circulation and thus to threaten the rouble with eventual demonetisation is ominous, since the loss by the latter of its present position as the principal medium of exchange would inevitably bring about the ultimate collapse of the new unit and the consequent failure of the entire scheme of currency reconstruction, of which the *tchervonetz* is the corner-stone. The reason is that, at present, the stability of the *tchervonetz* depends on the parallel existence of the Soviet rouble, on which devolves the unpleasant work of clearing Budget deficits. Should the rouble be driven out of circulation and replaced by the *tchervonetz* note, which, at present, is by far the better medium of the two, this work would have to be done by the latter and would unavoidably result in inflation and depreciation.

The real nature of the problem, to judge by the Press, appears to be clearly realised in responsible circles in Russia. The State Bank, in view of improving the situation or, rather, of saving the *tchervonetz*, is already reducing its advances to trade.[1] Being faced with the alternative of either permitting its bank-notes to depreciate or striking a heavy blow on the industry by a refusal to continue financing its production for stock, the State Bank chose the latter course. Generally speaking, the same course would, probably, have been taken by any bank of issue, but in this particular case its expediency is a matter of serious doubt. Had it been possible, by means of forcible deflation, even at the price of heavy immediate sacrifices, to save the *tchervonetz* from depreciation and to use it in future as the basis of a sound currency system, this policy would certainly have been perfectly justified. Under the existing conditions, however, it would appear that the only result of these sacrifices, at the very best, would be a short respite for the *tchervonetz*, since its fate is determined by deeper causes, inherent to the present economic *régime* of Russia, which no measures within the compass of purely banking policy are able to alter. Until these causes are removed no monetary unit, however sound in itself, can escape depreciation in the long run.

The crisis which now threatens to wreck the attempt at the reconstruction of the currency system of Russia is immediately due to the condition of the Budget. Deficits in the latter, in spite of all efforts on the part of the Government to reduce them, are assuming the aspect of a permanent institution and have got to be met by inflation. In the first Budget, that is, in that for January–September 1922, the deficit exceeded 50 per cent. For

[1] Q.v. *Economitcheskaia Zhizn*, 1923, N. 221, A. Desen on "Credit Policy."

the financial year 1922–1923 the revenue, according to the Budget Estimates, was expected to amount to 538·6 million gold roubles against an expenditure of 1,240·3 millions. For the first six months of the year the deficit actually reached 57·2 per cent.[1] Hence the growing inflation, to which reference has been made above.

The Soviet Government is now attempting to reduce inflation by means of borrowing, which it practises on a comparatively large scale and in various forms. Quite recently it introduced the principle of compulsory borrowing, in order to increase the subscription to a lottery loan it is now floating. Compulsion is being applied to the "owning" classes of the population. In the case of Government contractors, for instance, it takes the form of payment of 15 per cent. of the sums due to them in bonds of the loan.

The expediency of borrowing, as a means of reducing inflation, under the conditions now prevailing in Russia, is, however, a matter of serious doubt. Industry and trade being extremely short of working capital, as is seen from numerous articles in the Press containing complaints on this score, borrowing is more likely—especially if it is made compulsory, as is actually the case—to aggravate than to reduce inflation. The 15 per cent. the Government is now withholding from the contractor, for instance, in the form of a loan, it will have to pay to him, all the same, a few days hence through a bank with which the bonds will be lodged as security for an advance. Inflation will continue, though hidden under the delusive cloak of "real demand for currency on the part of the market." Besides, borrowing is essentially a palliative, which is very effective in coping with temporary financial difficulties. It is no remedy against serious disorders in the economic and financial system and is more likely to aggravate than to improve them.

It is evidently no use to combat the symptoms, instead of tackling seriously the actual source of the trouble, which it is not difficult to find. A study of the Budgets of the Soviet Government cannot fail to disclose the principal cause to which deficits are due. This cause is to be found in the nationalised industries, which are a standing charge on the Budget. In the course of the last financial year, October 1922–September 1923, they cost the State in direct subsidies alone about 140 to 150 million gold roubles,[2] or about 12 per cent. of its total expenditure, apart from loans and advances from the State Bank, of which a considerable

[1] Q.v. *Economitchesky Vestnik*, N. 2, pp. 234–235.

[2] Q.v. "Nationalised Industries in 1922–1923," *Economitcheskaia Zhizn*, N. 1, October 1, 1923.

proportion, as a rule, is written off as bad debt. Besides, nationalised transport cost about 100 million gold roubles [1] and, in addition, has recently been given powers to borrow on so-called "transport certificates" to the extent of 5 million gold roubles, in order to meet its deficiency in working capital.[2] Fresh allocations of subsidies are already being made for the first quarter of the current financial year 1923–1924, again involving very large amounts.[3] Thus it is seen that the nationalised branches of production and transport, although being apparently managed on "commercial principles," are a direct burden on the Budget to the extent of about 240 to 250 million gold roubles a year or of, approximately, 20 per cent. of the total. Accordingly, to deal radically with the deficits, which do not and will not permit the reconstruction of the currency on a sound basis, it is essential, in the first instance, to unburden the Budget of the nationalised industries by handing them over to private enterprise, and thus to make the unavoidable second step in the direction in which the first was made in 1921. Besides removing this direct burden, the reform would, certainly, facilitate the attraction of the necessary capital to these industries and would generally improve economic activities by a return to competitive conditions along the whole line.

After all, the country has got to be restored and, whatever its shortcomings, private enterprise has proved in the past to be the best master-builder of prosperity and progress the world knows. Sooner or later the last remains of the bankrupt system of Communism, now still surviving in Russia, will have to be buried, and the sooner this is realised and done the better for all those concerned. Not until this necessary reform is accomplished will it be possible to think of a real reconstruction of currency. That sound currency is badly needed in Russia even now, under the existing economic *régime*, no one would dispute. But so is a good roof on a building, and yet no one would build a sound roof without first having taken care to make the walls sufficiently strong to support it. This, in a nutshell, is the position with the currency reform of the Soviet Government: however sound the principles on which the attempts are based and however essential their success, they are bound to be frustrated so long as the present anomalous and wasteful economic system is maintained.

[1] Q.v. P. Bourischkine, *Economitchesky Vestnik*, N. 2, p. 152.
[2] Q.v. "Transport Certificates," *Izvestia*, 1923, N. 219.
[3] Q.v. *Economitcheskaia Zhizn*, N. 4, October 5, 1923.

G. A. PAVLOVSKY

THE FAMILY WAGE CONTROVERSY IN GERMANY

In Germany, the names "Familienstandslohn," "Familienlohn," and "Soziallohn" are given to that form of wage which makes individual earnings vary not merely with the market value of the work done, but also with the number of persons dependent on the individual wage-earner. The organisation of an open market ensures that in the long run only one and the same price shall be paid for different units of the same commodity. This applies also to the labour market. If the individual married worker were to demand a higher wage than his equally competent unmarried colleague, employers would prefer the latter to the former, and fathers of families would consequently find it difficult to obtain work. Thus the family wage at the very outset contradicts a fundamental principle of our economic order; and while it thereby acquires a special theoretical interest, it is at once obvious that there can be only two possible conditions for its realisation. Either it must be applied outside the ordinary competitive market, or else it must carry with it some special collective treatment of the market. As a matter of fact there were in pre-war Germany many cases of the grading of wages according to the size of the family; these, however, were all examples of the first-mentioned condition. Employees of the German States and local authorities and workers in monopolistic undertakings (such as the Zeiss optical works) were remunerated on this principle and are still so remunerated. In such cases no problem arises. Nor did any serious problem arise during the war, when not merely public but also private employers graded their bonuses in relation to the size of the family. Owing to the practical shortage of goods and labour, and also owing to legal war restrictions, the principle of the open market was superseded. And the higher costs of the business which expended a large sum in family bonuses were thrown wholly upon the State, since each firm was allowed its actual costs plus 10 per cent. profit. Only when State control was removed did the question of whether and how a family wage was reconcilable with the principle of the open market arise in full force. Only then did the necessity for the collective treatment of the market become apparent.

The nature of this treatment is well known to English readers. It was first conceived in New South Wales and has been widely adopted in France. It rests, of course, on the principle of insurance. All employers are required to contribute to a central pool a definite sum per head of their employees. And out of this pool those employees who have families to support receive bonuses, no matter in what particular firm they may work, no matter whether a given firm employs relatively few or relatively many employees with families. By this device the employer loses all interest in the family statistics of his workers. The statistics of the whole area covered by the pool are alone of importance to him.

The pool system was not adopted in Germany in direct imitation of the Australian model. It was borrowed from Austria, where as early as 1908 a very successful pool was formed by the pharmaceutical chemists for their married employees. The first German pool was instituted in 1920 by the Union of Berlin Metal Industries, one of the greatest and most powerful industrial groups in the country. They were followed by the chemical industry of Cologne, the employers' federation of the fine pottery industry, the employers' federation in the Berg industrial district, the Münster textile industry, and many other groups. In its detailed application the device of the pool has taken different forms. In the Berlin metal industries each participating firm has first to reckon how many wives and children are dependent on the average employee. Thus a general average for all firms is arrived at. Such calculations give the employers very little trouble, as in any case they are required by the taxation authorities to keep detailed statistics concerning the families of their employees, since the wage-earners' income tax is deducted at the source by the employer, and rebates are allowed for fathers of families. The positive and negative difference between the family average of the single firm and the average for the whole group (A) is multiplied for each firm by the number of its employees (E) and by the amount of the bonus (B). This gives the amount (x) which each firm receives from or contributes to the pool. $x = A \times B \times E$. If A is positive the firm receives x from the pool, if it is negative the firm contributes x to the pool. The procedure is similar in the Cologne chemical industry. Certain figures published by the Berlin metal industries illustrate the advantage of the pool system. Employees are frequently interchanged between the various firms, and thus the family averages of different firms at the same time, and of the same firm at different

times, vary considerably. In this double relation the averages of individual firms vary between:

0·0850 and 1·542 children per male employee,
0·0000 and 0·500 children per female employee,
0·2690 and 1·000 wife per employee.

Such variations would render separate family bonus schemes for individual firms unworkable. These variations, however, vanish almost completely when the firms are treated collectively. Then, the total average of different payment periods varies between:

0·6454 and 0·6766 children per male employee,
0·2083 and 0·2378 children per female employee,
0·6730 and 0·6988 wife per employee.

The total sum paid in family bonuses over the area covered by the pool is thus pretty constant. A questionnaire sent by the Association of German Employers' Federations to their members showed very favourable results; and on the whole there is justification for the statement that the new system of wage payment is making headway.

Hitherto these applications of the family wage have been wholly dependent on the initiative of local groups of employers and employed. This lack of system renders it not surprising that the actual amount of the bonus varies widely in different instances. In some cases a fixed household bonus is paid to married men irrespective of the size of the family; in others separate bonuses are paid for the wife and children, and these may be uniform in amount or graded for the first, second and third child, etc.; in some cases unmarried men are treated as fathers of families if they have impotent parents or illegitimate children dependent upon them; meanwhile the bonus may be graded according to the age of the child, and the upper age limit for the child's bonus may vary. On one point, however, there is general agreement: the subsidising of the father of a family must not be carried to such lengths as to compensate him completely for the extra expenses incurred, or offer him an inducement to parenthood—a purpose which is prominent in France for political reasons.

In order to estimate the importance of the family wage to German economic life, and to interpret the attitude of different interests with regard to it, one must take as starting-point the present economic position of Germany, and realise that every-

body's standard of life is miserably depressed. It was assumed before the war that the unitary wage, adjusted to output, was roughly sufficient for a family of four persons. Thus the younger workers who were responsible for less than three dependents were in a relatively favourable position. The frequently repeated assertion that, at present, wages are barely sufficient for the needs of a single individual, is clearly incorrect; since the non-wage-earning dependents of the workers do somehow manage to live. Moreover, younger workmen who are in an independent position manage to lead a fairly luxurious life on their wages, and enjoy tobacco, alcohol, cinemas, and expensive sweethearts. Nevertheless it is incontestable that this same wage, though it apparently exceeds the needs of a single individual, is not sufficient for a family. The problem is intensified by the fact that an unskilled worker's wage now approaches very closely to that of an older skilled man. Moreover, in contrast with earlier times the younger worker does not for the most part save the excess of his wages, since in the present chaotic condition of Germany the conditions for thrift are absent.

Under these circumstances, therefore, the employers are undoubtedly interested in the introduction of the family wage—so long as it does not involve an increase in the costs of production. For the energies of the older workers have been perceptibly undermined by anxiety, and by the necessity for material sacrifices for the family's needs. The older worker, steady, and conscious of his responsibility to his firm, is for the most part a more desirable employee than the irresponsible young man who changes his employment easily and willingly. If this is true in normal times, it is still truer to-day, when the youthful elements often introduce revolutionary and syndicalist elements into the factory, and a nucleus of older workers forms the best breakwater against such perils. Opponents of the family wage are not lacking, however, among the employers, though so far their arguments have carried little conviction. An increase in the army of unproductive workers, which some of them foretold as a result of the system, is, as a matter of fact, no real danger so long as the family wage represents merely a lessening of the burden of parenthood, and not a positive reward for the production of children. Moreover, it is common knowledge that an increase in the number of children does not by any means necessarily coincide with an improved standard of life. The further argument that the bonuses will have the same effect as inflation on the ground that they represent an increase of income corresponding

to no increase of production, shows inadequate knowledge of economics. Inflation could only arise if the total wage bill were increased by the amount of the bonuses. So long as it is merely redistributed as between fathers of families and bachelors, there is no reason for a rise in the general level of prices. Only within this price level, which as a whole remains unaltered, will small shiftings probably occur. The demand for popular luxuries will fall; the demand for necessary food and clothing will rise. If the shifting of prices in these two markets should eventually involve a contraction of production in the former and an increase in the latter, such a result is obviously desirable even from a purely economic point of view. The consumption of solid food and clothing is clearly more beneficial to future production than the consumption of alcohol and the latest fashions. Only in one respect can a reasonable ground for anxiety be found. So long as the introduction of the pool system is confined to particular branches of industry or particular localities, there is the danger of an influx of married men to those industries or localities, and an efflux of bachelors. In practice this does not seem to have occurred yet. It is, however, inevitable in the long run, and it can only be avoided by the legal establishment of a water-tight system for all industries throughout the country. Such a universal system would at the same time obviate, or at least reduce, another difficulty: that of accurately defining the limits of those branches of industry for which pools are to be established. A business which happened to employ a large proportion of unmarried men would resist inclusion in such a group; but the universal application of the system would remove all incentive to such resistance.

In labour circles there is widespread opposition to the family wage. While the leaders of the majority of the Christian Unions (which are closely connected with the Centre Party) declare themselves in favour of the plan, the leaders of the General Federation of German Trade Unions, *i.e.* the socialist unions, which include the vast majority of the workers, have expressed themselves as opposed to it. At first sight this opposition is unintelligible; and to a large extent it remains so even on further inspection. The fear that the reduction of the bachelor's wage might involve a general reduction of wages can be understood. The bonuses might be treated as "high price bonuses" or war bonuses, and by this method attempts might be made gradually to accustom the worker to the idea that the bonuses must eventually disappear altogether. Efforts of this kind have, in fact, been made by employers; and it is not surprising that the

workers regard such manœuvres with the profoundest suspicion. But this particular objection is not sufficient to justify or even to explain the obstinately negative attitude of the workers. For in so far as these suspicions are justified, they are justified merely by the misuse of a thing which is good in itself; and it is wrong to "throw away the baby with the bath-water." Should a reduction of wages come about, the family wage will not be the cause, even if it may be the prelude to the reduction. Moreover, the counter-proposals which aim at attaining the same end as the family wage by different methods are thoroughly unsatisfactory. As an alternative to the family wage, comprehensive abatements of taxation for fathers of families are proposed. Clearly the only tax which comes into question in this connection is the income tax. But here we already find important abatements; and since the bachelor whose income exceeds the taxable minimum has to pay only 10 per cent. in tax, the father of a family with the same income would gain in such new relief something less than 10 per cent.—clearly not enough. Moreover, the Exchequer would have to make up in some other way for the sum lost. For this purpose it has as available resources either taxes on capital, already stretched to their uttermost capacity, or indirect taxes which hit fathers of families particularly hard (taxes on luxuries are notoriously unproductive).

The most important reason for the opposition of the majority of the trade unions, though one which rarely finds expression, is their solicitude for the younger worker. It must be frankly admitted that the introduction of the family wage means real hardship for him in one respect. The higher wage formerly enjoyed by the bachelor enabled him to make arrangements for establishing a home, which cannot be effected after marriage out of current bonuses. Happily it is not difficult to find a remedy for this hardship. It is not incompatible with the idea of the family wage, nor is it technically impossible, to include such provision within the framework of the pool system itself, in the form of insurance. Thus it would be possible to pay out a single appreciable bonus before marriage, which owing to its relatively slight frequency would involve only a minute deduction from the basic wage.

Apart from this, the solicitude of the trade unions for the younger men arises from political considerations. After the Revolution, the workers, and particularly the younger workers, flocked into the unions. These new workers were all the more jealous of their influence inside the unions because they them-

selves had not, up to that time, been educated in the most elementary principles of trade union solidarity. Meanwhile the unfortunate separation of the workers into several groups of unions, mutually opposed in their ethical and political views, leads to perpetual competition for recruits, and thus induces the unions to offer their converts the most advantageous terms possible. All the more warmly, therefore, must one acknowledge the stand which many individual unions, and especially the General Federation of Christian Unions, have made on behalf of the family wage. It is very significant that as a general rule the socialist unions are backward in this respect. Their principle of " equal pay for equal work " has a definitely socialist character only when it is applied to those who receive incomes without working. When it is applied inside the world of labour it appears as pure orthodox liberalism. It acknowledges as just the results of the existing competitive system on a unitary wage basis without reference to human needs. In true liberal style the socialists accept the pursuit of economic gain as a motive of all conduct; only recognising solidarity in theory, where it is profitable. Fortunately men are often better than their theories. Nevertheless one can understand what purchase such a theoretical standpoint gives to the younger men's dislike of the family wage. Meanwhile even a policy of self-interest, if only it were more far-sighted, would pave the way for a change of outlook. The present opponents of the family wage would experience the benefits of the system when they came later to found families. There are, however, possible objections to this statement. We hope that in the future real wages will again touch a higher level, and that the hardships of families will be thereby diminished. On the other hand, it would be less difficult under such conditions for the bachelor to make his sacrifice. Nor is it certain, though it is likely, that the young men of the future will tolerate the family wage even if the young men of the present accept it. It is, therefore, unlikely that anything will be achieved in the socialist unions without an appeal to solidarity for its own sake. In the case of the Christian unions, we may thank their incomparably superior education for the powerful tradition which demands solidarity for its own sake—for religion's sake. In proportion as the socialist unions grasp the true spirit of socialism we may hope that they also will recognise the necessity for the family wage and declare themselves in its favour.

DR. EDUARD HEIMANN

University of Freiburg.

THE TRADING ACCOUNTS OF A LONDON MERCHANT IN 1794

ONE of the oldest firms in Lancashire is that of Peter Stubs, Limited, of Warrington, manufacturers of files, steel tools, and wire. The firm was founded in 1780, its beginning being attributed to the discovery, by Peter Stubs, of a process of hardening files which produced better results than any other known at the time. On his death the control of the concern passed to his sons, and from them to other members of the family. In 1890 it was turned into a private limited company, of which Mr. Francis Aylmer Frost, great-grandson of the founder, is the present chairman. Fortunately, in a loft in a portion of the works, a large mass of early business records has been preserved, and the interest of Mr. Frost in the history of the firm with which his family has been associated for nearly a century and a half is shown by his having made these records accessible for the purpose of research.

During an examination of the records two books have been discovered, a " waste " book [1] and a ledger, which give a complete account of the business transactions of John Stubs of Newton, from 1st March to 31st December, 1794, and it is from these books that the information contained in this article has been obtained. At the moment it is impossible to say what was the exact relationship between Peter and John Stubs, but the fact that a portion of the business records of the latter have been preserved with those of the former suggests that it was very close. Moreover, seeing that the main branch of the family had resided in Warrington and its vicinity, certainly since the sixteenth century, it is safe to assume that the Newton with which the books of John Stubs are headed is the place now known as Newton-le-Willows, situated between Wigan and Warrington, about five miles from the latter town. Formerly Newton had been a small market town, but, in 1794, although it still retained the privilege of sending two members to Parliament whose election rested with the occupiers of about thirty-six tenements,

[1] A " waste " book is one which contains a record of transactions in the order in which they occur.

it was then but an unimportant village consisting of one street.

A glance at the character and extent of the transactions of John Stubs at once suggests that Newton was hardly the type of place in which his business headquarters would be situated. Probably his relation to Newton was that he had a residence there, as it is clear that his business headquarters were in London.[1] His business was that of a merchant who bought and sold various kinds of commodities, forwarded and received goods on consignment to be sold on commission, and engaged in insurance transactions as an underwriter. On occasion he was not averse from dealing in ships: his most profitable venture during ten months of 1794 was as part-owner of a privateer engaged in operations against the French.

When his books open on 1st March his assets amounted to £10,925 and his liabilities to £412. The assets were made up of £8100 in cash, 5 pipes of Canary wine, 10 hogsheads of French wine, 25 hogsheads of Lisbon wine, and 44 bags of hops valued at £125, £300, £175 and £185 respectively. In addition he had in stock 56 pieces of Norwich crape, 90 pieces of sagathee, 20 pieces of duroy, 90 pieces of serge, and 20 pieces of drugget of the respective values of £157, £135, £90, £63, and £47.[2] The remainder consisted of debts, owing by eleven individuals, the larger proportion for goods supplied, though the largest single debt of £500 was for money lent on bond on which interest at the rate of five per cent. was paid. The liabilities included only two accounts. Evidently many of those with whom Mr. Stubs had transactions were "respectable" men, in the eighteenth-century sense of the word, as in several cases they have "Esq." attached to their names, and in one case the title of "Sir."

The above paragraphs give a fairly clear indication of the character of the business conducted by John Stubs. In a word he was a typical eighteenth-century London merchant who bought English cloth and produce and disposed of them at home and abroad, and his transactions during 1794 show that he performed similar functions as regards foreign cloth and produce. Between 4th March and 20th August much of Mr. Stubs' activity

[1] Apart from the general evidence of his transactions, this fact is established by such entries as the following: "Upon examining the list at Lloyd's Coffee House I found that the good ship *Falcon* was lost on the rocks of Scilly." "This day I was informed at Lloyd's that the *John and Hannah* was unfortunately lost on the Downs in a gale of wind."

[2] All these goods will be recognised as products of the eastern and western cloth districts. Throughout the article values are given to the nearest £1.

was absorbed by his privateering venture; but, leaving this aside for the moment, a brief account may be given of the more important of the other transactions in which he engaged.

At the outset it may be noticed that the majority of purchases and sales recorded were made with present money, or on short-credit terms, though in a few instances credit for as long as six months was allowed. The method adopted in credit transactions was that of giving promissory notes, or of accepting bills, and not infrequently Mr. Stubs utilised his ready money in meeting demands before the due date, thus securing abatements. It was with present money that in April he bought 3252 lbs. of pepper and consigned it on the good ship *Mary* to Jacob Van Hoove of Amsterdam, to be sold on a one per cent. commission. With shipping charges the value of the pepper amounted to £140, but events proved unfavourable to the venture. Within a few days a message was received that the ship had been lost on the coast of Holland and that no part of the cargo had been saved. However, as the pepper was covered by insurance, the loss amounted to little more than £18, and this deficiency was more than offset by a consignment, to the same man, of 100 quarters of wheat worth £99, purchased and shipped by an agent at Harwich, again on a one per cent. commission, for which a gross return of £161 was received.[1]

Most of the consignment transactions recorded originated on this side, but not all of them. Shortly after those just mentioned a consignment of 1000 reams of fine paper, 120 pieces of Holland cloth, and 100 pieces of long lawn was received from Abraham Van Schooten, merchant at Roan (? Rouen or Roanne), on the sale of which a commission of two per cent. was allowed. Almost immediately these goods were sold, and as the returns had to be made in Norwich crape, duroy, and broadcloth, on the purchase of which there was another two per cent. commission, the transaction proved a satisfactory one, especially as Mr. Stubs was enabled to dispose of some of the duroy he had in stock.

The above transaction was carried through in June and, in the following month, we find Mr. Stubs entering into an arrangement with a temporary partner whereby they agreed to consign to Jacques Jollife, a merchant at Copenhagen, 100 silver watches valued at £300, a bale of scarlet cloth valued at £400, and 36 hogsheads of tobacco valued at £734, which with shipping charges made up a total of £1464. On the arrival of the consignment at

[1] The wheat was sold 6th May, but the bill of exchange in payment was not received until 10th November.

Copenhagen a demand was made on the commissioners of customs in this country for a drawback on the tobacco of £436, which was received within a few days. Almost before the drawback was paid the Copenhagen merchant informed the consignors that he had had the good fortune to dispose of the goods at prices which yielded a gross return of £2510 after his commission and other charges had been met, and this amount was quickly increased by another £10 through the disposal of the bill drawn upon the merchant to Johannes Scheelhase, who required a credit in Copenhagen.

In the meantime Mr. Stubs had entered upon another profitable transaction, in conjunction with another temporary partner, but in this case it was entirely carried through in this country. This transaction consisted of the purchase, from John Marsh of Manchester, of 5628 lbs. of superfine thread at 14*s.* 10½*d.* per lb. making a total of £4185 16*s.* 6*d.* The purchase was effected on the terms of three bills, the first for £2185 16*s.* 6*d.*, payable in two months, the second and the third, each for £1000, payable one in four months, and the other in six months. The date of the transaction was 17th July, and on 28th July 1000 lbs. of the thread were disposed of on similar credit terms to those on which it had been bought. On 3rd August another 1000 lbs. were sold, but in this case for present money. The next sale of 1000 lbs. was effected 24th September on the terms of £500 present money and the remainder in six months. This sale was followed by two more sales, each of 1000 lbs., on 28th and 29th December, the first for present money and the second on six months' credit. In all these sales a price of 18*s.* per lb. was obtained, but the remaining 628 lbs., disposed of 30th December, were sold at 17*s.* per lb., the money to be paid in twenty days. Allowing for the charge of bringing the thread into Mr. Stubs' warehouse, his ledger shows that, on this transaction, the partners jointly made a profit of £930.

The next important transaction is dated 9th September, when advice was received from Timothy Sutton of Barbadoes that he had shipped 45 chests of sugar, the value of which with shipping charges amounted to £167. On the arrival of the sugar in this country, customs, cartage, and other charges increased this sum to £219. In this transaction Mr. Stubs was again associated with two partners who, in addition to his share of profit, had agreed to allow him two per cent. for warehousing and for selling the sugar. Evidently they had little reason for complaint with the result, for, within a week of its arrival, the sugar was sold at a

price which yielded a profit of £220 to each of the three partners. Perhaps it was the success of this venture which induced Mr. Stubs, in the following month, to consign to Timothy Sutton at Barbadoes, 30 bags of hops, 20 pieces of serge, and 20 pieces of sagathee, of the total value of £202, to be sold on commission, but the result of this transaction belongs to a date later than 31st December, 1794.

The only other foreign transaction given in the records took place in December, when Mr. Stubs imported from Cadiz 100 chests of oranges and 50 chests of lemons, valued at £34, for which amount he accepted a bill which, by arrangement, he retained in part settlement of an account owing by one of his customers. During 1794, of course, many transactions were effected at home which are not mentioned in this article. One which may be noticed was the purchase from Nathaniel Keeble of Hull of 150 pieces of Yorkshire cloth of the value, including carriage, of £1152. At the same time, from the same man, Mr. Stubs also received 50 pieces to be sold on a two per cent. commission. Again, during the year, he acted as underwriter on three occasions with somewhat unfortunate results. On 28th May he accepted responsibility to the extent of £200 on the *Golden Fleece* bound for Jamaica, which voyage was successfully performed. On 14th August he discovered that the *Falcon* bound from London to Smyrna, containing an amount of scarlet cloth for which he was responsible, again to the extent of £200, on an eight per cent. premium, had been wrecked on the rocks of Scilly; and on 3rd December he received similar news of the *John and Hannah* bound for Spain, which voyage he had underwritten to the extent of £300 on a six per cent. premium. On these transactions he incurred a loss of £158.

Any regret that Mr. Stubs may have felt concerning the result of his insurance transactions must certainly have been mitigated when he reflected upon the result of his privateering venture mentioned above. His records inform us that on 3rd March, 1794, he bought, at Garraway's Coffee House, the good ship *James*, burthen 300 tons or thereabouts, for £1500, and that he had "ordered her to be repaired and fitted out with all speed for a privateer against the French." On 8th March we are further informed that he had sold one-sixteenth part of the ship to Captain John Smith for £125, and that he had agreed to Captain Smith's going out as master of the ship. Between 3rd March and 7th May an expenditure of £1133 was incurred, the three largest sums being one of £700 "for several guns, small arms,

powder, shot, and other stores," one of £109 for a butcher's bill, and one of £87 for a baker's bill, while anchorsmiths, joiners, painters, ropemakers, etc. received the remainder. Also, during this time, Mr. Stubs sold seven-sixteenths more of the ship to seven individuals, each paying £125 for his share, with the addition of his proportionate amount of the above expenditure.

Early in May, therefore, the ship was ready for its duties, and on 20th May the following record of its activities appears: "The ship *James* having been out upon a cruise has taken a French merchant-ship, richly laden, homeward bound, which was ransomed for £40,000, half of which, namely, £20,000, belongs to the master and men, and the other half to the owners, my half of which I have received and deposited in the Bank of England and comes to £10,000." Two days later Mr. Stubs purchased £10,000 bank annuity at a cost of £9412, and "the rest of the money I have taken home."

In the above extract two interesting points call for notice, the first of which relates to the arrangements between the owners and the crew. In privateering ventures these arrangements were regulated by articles entered into between the two parties, but usually they assumed one of two forms. The crew might be engaged at definite rates of remuneration, in which case the prizes taken belonged entirely to the owners, except that usually a small share was allotted to the crew as an additional incentive. On the other hand, the crew were sometimes engaged on the terms of no prizes no pay, in which case the prizes were divided equally between the crew and the owners. Evidently in the venture with which we are concerned the latter arrangement obtained. The second point relates to the status of privateers and the regulation of their activities. Before commencing operations British privateers were required to obtain *letters of marque and reprisal* from the Government, without which they were liable to be regarded as pirates. When such letters had been granted they were subject to regulations for compliance with which security had to be given. One of these regulations was that when prizes were taken they were not to be regarded as at the disposal of the captors until the question had been so decided in the Court of Admiralty, while another prohibited the system of ransom, except in cases of extreme necessity, which again had to be allowed by the Court.[1] Presumably these requirements and regulations were complied with in the case of this privateer,

[1] On the whole of this question see McCulloch, *Commercial Dictionary*, art. "Privateers," also 33 *Geo.* III. c. 66.

but there is no evidence of the fact in the present records, and it is not without significance that both the above capture and a later one were ransomed.

Seeing that no expenditure is recorded in connection with the ship *James* immediately after its first capture, it would appear that an easy success had been gained, and on 9th July her further activity is recorded in the following entry: "The ship *James* after a smart engagement with a French merchantman took her, but afterwards she was ransomed for £50,000 the half of which coming to the owners is £25,000, my half whereof as being half owner, which I have received, is £12,500." On this occasion Mr. Stubs expended £10,994 of his share of the prize in the purchase of £12,000 Old South Sea Annuity.

After this engagement some expenditure was required in refitting the ship, and on 6th August accounts for this purpose to the amount of £207 were paid. As a matter of fact this is the last recorded expenditure upon the ship. On 20th August the following entry appears: "This day received the unfortunate news that ship *James* was taken by a French privateer of superior force and carried into Brest." On 28th August Mr. Stubs purchased another ship burthen 300 tons for £1200 present money. Whether he had the intention of embarking upon another privateering venture is not clear, but, if so, he must quickly have changed his mind, as on 5th September his records state that he had sold the ship for £1600. However, when he came to close his books on 31st December, 1794, one can imagine that he viewed the result of his ten months' trading with some satisfaction. During the period his credit balance had grown from £10,513 to £34,658, an increase of £24,145, of which £21,330 had accrued from his connection with the ship *James*. But the whole of the difference between these latter amounts was not accounted for by ordinary trading transactions, as it included a legacy of £1000 "by the last will of my late brother-in-law, Christopher Verax."

G. W. DANIELS

REVIEWS

Economic Problems of Democracy. By ARTHUR TWINING HADLEY. (Cambridge University Press, 1923.)

DR. HADLEY'S " Watson Lectures " on *Economic Problems of Democracy* were given in English Universities as recently as April 1922; but they are already a little " dated." They are still touched by the influence of the war-years, and as one reads one feels how rapidly that influence has receded during the last year and a half. From 1914 to 1920 lectures of what one may call the " English-Speaking Union " type inevitably followed certain lines. They were frank in manner, and kindly in intention; but being prepared for a particular occasion they showed few signs of painful research; and, being delivered as part of a campaign to create good feeling between two countries who constantly misunderstood each other, they often avoided the really difficult elements of their problems.

But now that the years of peace have lasted longer than did the years of war, I find myself applying pre-war standards to the easy historical and social generalisations which the universally respected ex-president of Yale offered to his English audiences. His first lecture is an amplification of the statement that " the thing that does distinguish modern history from ancient history is the decisive importance of industrial movements and industrial successes in determining the fate of nations " (p. 4). In the ancient world, " if your army was superior to that of your rival in courage and in tactics, all other matters would take care of themselves " (p. 5). Not many students of the economic history of the Egyptian, Athenian, Carthaginian, and Roman empires would, I believe, here agree with Dr. Hadley. A student, again, of nineteenth-century economic history could write a whole critical treatise on his statement, " When the young-Hegelians, headed by Karl Marx, confined their theories to paper, they sounded plausible enough; but when the revolution of 1848 gave them the opportunity to use public credit for the establishment of national workshops, the failure was as complete, and the disproof as convincing, as the most ardent individualist could have desired " (p. 54). Later on Dr. Hadley speaks of the

"ateliers nationaux" as "the commercial workshops of Paris in 1848" (p. 141). Dr. Hadley would not find it difficult to convince himself that the "ateliers nationaux" were not "commercial workshops" but ordinary relief-works, and that the neo-hegelianism of *Das Kapital* had nothing to do with them. If, again, Dr. Hadley will re-read certain chapters in Mill's *Political Economy* and Autobiography he will, I believe, write less absolutely about Mill's "complacent optimism" (p. 54).

When I was in the United States in 1919 I used to notice an assumption, among the more conservative writers and thinkers, which I also noticed in England during the 1880s—that the whole social question consisted in an illegitimate claim by those members of the community who were naturally fitted only for routine manual labour to enjoy that share in the joint economic product which was due to the superior intelligence of the born inventors and organisers. The really difficult problems of the degree to which organising power might be due to the mere possession of wealth, and the possession of wealth might itself be due to inheritance or some other cause than the superior natural efficiency of the possessor were largely ignored. This assumption and this "ignoratio" run through Dr. Hadley's lectures. He speaks, for instance, of "the perils of internal conflict between hand-workers and brain-workers" (p. 17). On his assumption class consciousness is a sheer moral aberration. "Class consciousness," he says, "in its early stages means that the members of a social or economic group are so impressed with their own moral superiority to the rest of the community that they care relatively little what the rest of the community thinks or what becomes of it" (p. 133).

From the point of view of the rest of the world the most important economic movement in America since the war is the growing determination to keep immigration down to a minimum. This determination is being copied all over the world, and may lead to many centuries of world-warfare. What makes this movement so formidable is that it is not a mere question of the more equal sharing of economic opportunities, but that behind it lie the biological problems of racial purity and racial expansion. Dr. Hadley ignores the biological problem altogether, and tells us that the movement "represented the introduction of a new principle into American politics, and a new theory into national legislation—the theory that the maintenance of the standard of living of the American workmen and the maintenance of the integrity of American ideals depended on acts of Congress." (p. 122).

The "Sir George Watson" Foundation may in the future help to perform the invaluable function of bringing the best American thought to bear on the problems of world reconstruction. But if it is to do so, the future Watson professors must offer us the fruit rather of fundamental brain-work than of a merely genial desire to propagate international good-will.

GRAHAM WALLAS

Food Production in War: By Sir THOMAS MIDDLETON, K.B.E., C.B., LL.D. Publication of the Carnegie Endowment for International Peace. (Oxford: Clarendon Press, 1923. Pp. xiv + 373. Price 10s. 6*d*. net.)

SIR THOMAS MIDDLETON was Deputy Director-General of the Food Production Department which was established at the beginning of 1917, and in this book he has given us the most thorough and elaborate account of the history of food production in this country during the war which has as yet appeared.

The subject is a difficult one—complicated, involved, full of detail; and on the whole Sir Thomas Middleton is to be congratulated on the skill with which he has contrived on the one hand to include a great mass of statistical information, and on the other hand to construct a readable and intelligible story.

But if the book must have been a difficult one to write, it is also difficult to review. For one thing, there is so much in it, that it is not very easy either to select topics for discussion from the many which deserve it, or to pronounce judgment upon the qualities of the book as a whole. Again, as in all histories relating to the war, it is almost impossible, for author and reviewer alike, to have an adequate sense of the relative importance of the various matters with which they are concerned. In the history of food supplies it is hard to appreciate the excellence of the efforts made to increase food production at home, and the great value of the results attained, without losing some sense of proportion and forgetting that throughout the years of war, as in time of peace, we were mainly dependent upon supplies from overseas, and that, as Sir Thomas Middleton says, "our experiences in the four years' struggle proved how strong were the grounds for confidence in our ships" (p. 3). The fact is, of course—and it would have helped his readers to keep the real proportion of things in mind if Sir Thomas Middleton had given the figures—that, though the Royal Commission on Wheat Supplies imported more than 12½ million tons of grain and grain products during the period of

intense submarine warfare, only 4 per cent. of the possible arrivals were lost through enemy action.[1] In summing up the results of the Food Production Campaign, Sir Thomas Middleton estimates that "whereas the country began the war with supplies provided by its own soil which would have sufficed for 125 days out of the 365, in the year in which the Armistice was signed it had secured a harvest that would have sufficed for 155 days out of the 365." In other words, "the land's extra produce was equivalent to the supply of 30 days' food for the nation living its normal life" (p. 322). It is important to emphasise these facts, because they are not so well known as they deserve to be and because even in the book before us their full significance is not always kept to the fore. We are told, for instance, that "in the course of the four years' war our ships were set an impossible task," and that "before food can be transported from other lands there must be food to transport" (pp. 3–4). This suggestion that what was lacking was not ships but sources of oversea supplies would surely be hard to substantiate, though Sir Thomas Middleton rightly emphasises the influence upon the food production policy of the poor American harvest in 1916. It is rather misleading to point out that "Russia and Rumania, two of the chief wheat-exporting countries, were completely shut off" (p. 259), without noting that the average net import of wheat into Germany in the years 1909–1913 was equal to three-eighths of the average net exports of wheat from Russia and Rumania in the same period.[2] The statement that "the long voyages to India and Australia made the surplus of those countries also quite beyond reach of the Allies, at any rate until a number of new ships had been built" (p. 259), is hardly consistent with the suggestion that supplies rather than shipping were deficient. We read that "all three American wheat exporting countries had much extended the wheat acreage, but frosts in Canada, or drought in the United States or in Argentina, might prevent a corresponding increase in the crop" (p. 260). I am afraid that this sentence is liable to mislead the ignorant into supposing that foreign supplies in general are more precarious than home-grown crops. No doubt an unexpected and therefore undiscounted addition to home

[1] See *First Report of the Royal Commission on Wheat Supplies* (Cmd. 1544), pp. 37–38.

[2] The average net Russian and Rumanian export was 54,488,000 quintals; the average net German import 20,898,000 quintals. For wheat flour the figures are 1,966,000 quintals (Russian and Rumanian export), and 1,612,000 quintals (German net *export*). See *Annuaire Internationale de Statistique Agricole* 1917 *et* 1918, pp. 283, 287, 289, 295.

wheat production is an admirable insurance against an abnormally thin harvest abroad, but if as a normal thing a larger proportion of our bread stuffs were grown in one climatic area (the British Isles) the variability of supplies would surely be greater than it is. The British Empire as a whole has an average year to year fluctuation of some 15 per cent. in the wheat crop as compared with a fluctuation of about 5½ per cent. in the wheat crop of the world.[1] In considering the question of supplies during the war we must remember the gigantic scale of the expansions of the wheat areas of which Sir Thomas Middleton speaks so summarily in the sentence just quoted. In Canada and the United States the average wheat crop of the war years exceeded that of the years 1909–1913 by over 52 million quintals, which is more than two and a half times as much as the entire average crop of the United Kingdom in the period 1914–1918. The increase in the average crops in the Argentine and Australia amounted to more than 50 per cent. of this British and Irish average.[2]

It is important to keep our sense of proportion; but it is no less important to recognise that the British Food Production Campaign was a valuable contribution to the Allied cause and attained a remarkable measure of success in spite of very great difficulties. Those who organised it in the Department and those who carried it out in the fields may well claim to share with the British Navy the credit of having made possible the rapid transport of the American armies to France. But it is a pity that in his account of the campaign Sir Thomas Middleton is so much inclined to pooh-pooh its critics. It is not by minimising the mistakes which were made, but by exhibiting the difficulties which were surmounted, that the historian can reveal the real merit of the work.

Sir Thomas Middleton's attempt to estimate the cost of the Food Production Campaign is extremely interesting, and it is especially noteworthy that according to his estimates the cost in Scotland and Ireland, where the comparatively large area normally under temporary grass facilitated matters, was much less (in proportion to the results) than it was in England and Wales. But it is really impossible to gauge the real cost of the campaign, for one cannot assess the loss due to the neglect of cleaning, draining and hedging during the war, nor reckon what proportion of that neglect was the result either of the diversion of energy to the urgent task of ploughing up grassland or of excessive cropping

[1] See *Economist*, April 24, 1909, p. 861, quoted by Professor Pigou: *Wealth and Welfare* (1912), p. 141.

[2] See *Annuaire Internationale de Statistique Agricole* 1917 *et* 1918, p. 25.

with corn. In this chapter, as well as in other parts of his book, Sir Thomas Middleton seems rather inclined to draw more definite conclusions from statistics than are really justified. This defect is perhaps especially noticeable in his discussion of the food values of various crops and various kinds of stock. When some authorities, for example, consider that beer retains less than a quarter of the energy value of the barley which has gone to its making, while others put the figure at one half, it is wise not to be too precise in translating crops into Calories.

Sir Thomas Middleton does not confine himself entirely to the war period, but has a good deal to say about earlier history and about the future. He quotes the conclusion reached by Sir Henry Rew in his Presidential Address to the Royal Statistical Society (1921), to the effect that "a larger quantity of food was being produced (*i. e.* in Great Britain) at the outbreak of war than at any previous period." I am inclined to be rather sceptical about this conclusion, since the evidence on which it is based is somewhat slender, but if what Sir Thomas Middleton says about it is really the most that can be said against it, it seems to me to hold the field. It is preposterous to brush it aside, as Sir Thomas Middleton does, by quoting a vague and largely irrelevant sentence from Prince Bulow's book on *Imperial Germany*. The facts adduced by Sir Thomas in a later chapter to show that "the soils of the country, cultivated as they were in 1831–40, were capable of supporting a population some 27 per cent. greater than they could have fed in 1909–13" (p. 98) hardly carry conviction. The argument, which is a deduction from population and import figures, seems to depend on the assumption that in the earlier period the average inhabitant of the United Kingdom consumed one million Calories per annum as compared with an average consumption of 1,092,000 Calories in 1909–13. But it is incredible that in the "thirties" the underfeeding was no worse than this. And even apart from underfeeding, Sir Thomas Middleton seems to have overlooked the fact that in the earlier of his two periods the "average inhabitant" of the United Kingdom *needed* less food than in the later period. In 1841 36 per cent. of the population of England and Wales were under fifteen years of age: in 1911 only about 30½ per cent. were under fifteen.

The last twenty-five pages of the book are concerned with the agricultural prognosis. Sir Thomas Middleton is well known as a staunch advocate of the plough; but he is fully alive to the fact that the hopes of some less well-informed tillage advocates are unsubstantial visions. He says that "the suggestion that we

might furnish our people with their normal food supply may be dismissed as absurd " (p. 324), that " to the farmer of the United Kingdom his live stock must always be the principal source of income " (p. 327), that " it would be more difficult to add 15 per cent. to the yield of tillage crops than to add 30 per cent. to the yield of pastures " (p. 331), that our climate, though " a fine climate for tillage farming," is " still better suited for grass-growing " (p. 332), and that " it would clearly be economically unwise and socially undesirable to expend on our land labour which can be used more profitably in other industries " (p. 339). These are sound doctrines, but occasionally in the discussion the grip upon all that they imply seems to slacken. In general Sir Thomas Middleton argues that 28 million acres must remain under grass, and that 12 million acres will in any case grow other crops, but that there is a margin of 6 million acres which would nearly all be under grass if *laissez-faire* is the order of the day, but on which " the balance against tillage is not very heavily weighted," so that " a counterpoise should not be impossible " (p. 341). If the 28-million-acre area of grassland is meant to include arable land under clovers and grasses (which is not distinctly stated), and if it is intended that clovers and temporary grasses should cover the same breadth as before the war, the suggested programme would seem to involve an arable area greater by some 6 million acres than the average of 1904–1913.

To discuss this programme adequately would be to lengthen this review unduly. The most weighty argument put forward is the contention that in the long run tillage would pay best on the 6 million marginal acres, but that the individual farmer cannot afford to wait for long-period results. This contention, however, is not supported by evidence. The one definite " counterpoise " which is suggested is that in rating and taxation discrimination should be made in favour of arable land. About that I will only say that, if likely to be effective, its economic justification would seem to depend upon the validity of the previous contention, and that as regards the question whether it would be effective, Sir Thomas Middleton seems to overlook the possible reaction of such discriminating rates and taxes upon the relative rents of arable and pasture. Apart from questions of state policy, Sir Thomas Middleton is inclined to think that the future development of the refrigerated meat trade will tend to raise the price of grain by giving farmers in new countries further opportunities of " converting grain into meat when grain prices are low " (p. 336).

REGINALD LENNARD

The British Coal-mining Industry during the War. By Sir R. A. S. REDMAYNE, K.C.B., M.Sc. Publication of the Carnegie Endowment for International Peace. (Oxford University Press.)

The Miners' Unions of Northumberland and Durham. By E. WELBOURNE, M.A. Fellow of Emmanuel College, Cambridge. (Cambridge University Press.)

"THE British Coal-mining Industry during the War" is certainly a subject of unusual, one might almost say thrilling, interest, the presentation of which, however, is a task of great difficulty, if full satisfaction is to be given to all the special view-points of the many different persons interested. This book might easily have been a dull though extremely useful record of facts and figures; it might equally have been a supremely melodramatic account of the author's personal views and intimate reminiscences. But in the hands of Sir Richard Redmayne a vast mass of material has been shaped into a balanced record, while everyone will delight in the extraordinarily successful literary technique by which the author has sustained the interest without descending to the use of too minute or irrelevant details.

Most men would probably agree that on the whole the regulation of the coal industry during the war was a more or less successful attempt to meet a very grave and difficult emergency. But one wonders whether even all men of sound and disinterested judgment would fully subscribe to the general feeling of contented achievement which underlies Sir Richard's record of events, at any rate up to the time of the Armistice. He emphasises the complicated and delicate nature of the industry, and it would be a good thing if many people realised this more fully; but to argue from this that a system of control, if successful, must therefore also be complicated is not necessarily sound. At various times the number of committees and officials, separate yet all necessarily in liaison, makes one marvel at the complexity of the organisation which was established, but it also makes one wonder whether an enormous wastage of effort was not entailed, while if business can really be more or less efficiently conducted under such circumstances, it would seem that many of the arguments against socialistic bureaucracy are not worth much in practice. In 1917 there were eight central organisations concerned in the export trade without including the various local committees, and the buying agencies of foreign countries; this may, in Sir Richard's

words, be "eloquent testimony to the importance and complexity of this branch of the coal industry," but there is an equally eloquent testimony that "simplicity is the keynote of organisation."

Sir Richard's view that financial control might have been avoided if it had not been for the industrial difficulties in South Wales, and that this would have been desirable, is extremely interesting. Yet one wonders whether financial control was not inevitable sooner or later. For the South Wales miners were not black sheep in an otherwise white flock: they were simply the more active spirits. The miners in all coalfields not only had a steadily increasing grievance occasioned by the lag between wages and the rising cost of living, but were slowly realising the strength of their bargaining position: sooner or later the storm would have broken elsewhere if not in South Wales. It is difficult also to see how equal and simultaneous advances could have been given without direct financial control, and the Miners' Federation would have left no stone unturned to secure an object, which by tending to equalise the general level of wages in all districts was in direct line with principles formulated long before the case was reinforced by the common rise in the cost of living.

The book is packed with interesting subjects, and Sir Richard must have found it hard to curtail his explanations and comments. The emphasis which he lays on "coal power" as given by the intense demand for our exportable surplus and by the control of neutral shipping which we were able to exercise through our possession of the world's coaling stations, will come as a surprise to those who have not studied the international aspects of the industry. Sir Richard rightly justifies the use of that power during the actual war years, and equally condemns the national profiteering which took place in 1919 and 1920 at the expense not only of neutrals but of our late allies, and which precipitated and greatly aggravated our own troubles in 1921. The arrangements for the regional disposal of coal at home, and the consequent economy in rail transport, the success attained by the rationing of domestic coal and its unexpected result in promoting a greater consumption by the poorer classes, the comparative failure to inculcate economical use of coal in the home, or through an up-to-date use of electrical power for industry and transport, the difficulties which had to be faced in maintaining adequate supplies of timber, plant, horses, fodder, and even candles—all these, not to mention such bigger issues as the supply of man-power, are fully and adequately described. One thing perhaps is lacking;

the recorder of history should have regard not only to what men did, but to what they were thinking. It is a difficult matter, but in many ways it is the most valuable contribution which a contemporary can make. From this book it would be hard to grasp the attitude of the different parties affected, or to appreciate how feelings changed as events succeeded each other. It may be best for us in the present to forget, but this will not be the duty of the future historian, who may feel that he has not been so adequately served by Sir Richard in this as he has been in most other respects.

Any scientific and strictly impartial study of trade-union history is always welcome. Many people perhaps labour under the delusion, which is certainly not fostered by those pioneers, that Mr. and Mrs. Webb in their monumental work have said all there is to be said, or at any rate all that need be said. In consequence trade-union history has been somewhat neglected, despite the fact that it is a field of most useful and necessary research. One is inclined to wonder, however, whether Mr. Welbourne has been well advised to spend so much time and patient labour, as he must have done, in writing his history of *The Miners' Unions of Northumberland and Durham.* For the great age and early predominance of the North-Eastern coalfield have made an exceptional appeal to historians at various times, and we already possessed a very fair knowledge of the particularly interesting history of trade-unionism in this district. On the other hand, we have no such knowledge in regard to most other coalfields, and we should have been still more grateful to Mr. Welbourne if he had broken completely new ground, and spent his time and energy in attempting to fill some of these blank spaces.

Mr. Welbourne has, however, produced a book which will in most respects supplant all previous works on the subject. His special contribution would seem to be the systematic extraction of evidence from contemporary local newspapers : a more arduous work than most men have previously been prepared to undertake. As a detailed record of events his book is invaluable, though even in this respect there are one or two curious omissions ; but as a history it is less satisfactory, for in several places he allows detail to obscure the really important issues, and he hardly devotes a proportionate amount of attention to those issues in comparison with that given to minor and relatively unimportant details. For example, he has not achieved a clear picture of the evolution and gradual alteration and disappearance of that most funda-

mental system, the Yearly Bond, and even as regards the chief landmarks, one has to turn to Mr. Webb's little book—of the existence of which Mr. Welbourne seems totally unaware—to learn that in Durham, at any rate, it was in the year 1810 that the Bond first included the guaranteed payment of half-a-crown a day if the pit was idle for more than three days. This is a historical fact, the truth about which is far more important than the enumeration of many little local disputes. Again Sir R. Redmayne is quoted by Mr. Webb as asserting that the great strike of 1844 " gave the death-blow " to the Yearly Bond, after which it was increasingly replaced by fortnightly contracts. Mr. Welbourne does not mention this in connection with the strike, and the reader is only slightly safeguarded against the supposition that the Yearly Bond was still the universal practice until its final abolition in 1869.

There are also other curious omissions in this book. Mr. Welbourne makes no mention of the general stirrings of trade-union thought and activity among the miners of all coalfields as the result of Alexander Macdonald's early campaign. In their isolation the northern pitmen may have remained unaffected; if so, it is a point worthy of note. Even more striking is the fact that throughout the book we failed to find any mention of the check-weighers, and a final reference to the index confirmed this omission. If Mr. Welbourne thinks the influence of the institution of check-weighers negligible, he should have advanced arguments in support of his view, since most students regard this influence as of fundamental importance to the development of trade-unionism among the miners.

Mr. Welbourne has, however, thrown new and interesting light on many points. The wealth of detail does certainly produce a strong local colouring. He offers some suggestive remarks on the beneficial aspects of some restriction of individual output in the early years before this practice was designed to influence prices. He emphasises the undoubted fact that in remedying the hard conditions of certain grades, notably of the drivers and putters, mechanical improvement has been a far more powerful factor than legislation. The various causes which led to the separation of the two counties in 1864 are clearly brought out, and the statement of the difficulties with the Miners' Federation over the eight-hours day is a just and balanced exposition. Throughout, Mr. Welbourne preserves an admirably judicial and unbiassed attitude, though in the last chapter one is inclined to wonder whether he understands the new school of thought

led by Tom Mann and Keir Hardie sufficiently well to effect a true comparison with the older principles of Burt and Wilson.

In our opinion the book would have been more valuable if Mr. Welbourne had incorporated some short sketch of general trade-union development in the other coalfields by way of contrast and complement to the admittedly isolated history of Northumberland and Durham. He has confined himself altogether too exclusively to local history. For example, he fails to link on the local events of 1844 to the widespread movements produced by the Union of Miners of Great Britain (called by others the Miners' Association of Great Britain), while one would think that the work of Roberts, the Pitmen's Attorney-General, was confined entirely to the north. For this and other reasons pointed out above, while Mr. Welbourne deserves thanks for providing a detailed and careful record of local development, his method of presentation is not wholly conducive to the formation of broad historical judgments or practical conclusions. J. W. F. ROWE

The Worker and the State: Wages, Hours, Safety and Health. By FRANK TILLYARD, Esq., M.A., M.Comm., Barrister-at-Law, Professor of Commercial Law at University of Birmingham. (George Routledge & Sons. 1923. Pp. 298. 10*s*. 6*d*.)

THE purpose of this book is well stated by the author, namely, to furnish an exposition, historical as well as critical, concerning the interference by the State in the relationship between the employer and the employed for the purpose of securing the health, safety and general well-being of the latter. The appearance of the book is timely owing to the increasing scope of State interference with the employment relationship as regards wages, hours, health and safety; and in particular, because at the moment the position of the Trade Boards, Workmen's Compensation, and adjustments in hours and wages are to the fore not only as questions of industrial practice, but also as problems of practical politics. The author's experience as Chairman of Courts of Referees of the Birmingham District and Chairman of Trade Boards makes him well qualified therefore to deal with the subject. In his preface the author meets and disarms one of the general criticisms that may be made, namely, that the treatment frequently becomes general and the subject-matter lacks the detail required by the advanced reader, or the reader seeking minutely authoritative reference; but this, as the author

explicitly states, results from his desire to avoid a detailed book of reference and to furnish instead a broad and critical account of the law on the subject. The error of over-accumulation of facts is carefully avoided, and the data provided bears the hall-mark of practical experience and authoritative legal reference.

Section I is principally an introductory section dealing with the general contractual relationship between employer and work-man apart from statutory interference and experiments in industrial legislation. It includes a shrewd review of the legal position between employer and workman. An interesting section deals with the position of the piece-worker in the foregoing respects.

Section II furnishes a short historical summary of the various experiments undertaken by the State in the interests of the worker in the various forms of industrial legislation of the past fifty years, and in particular since 1906. Outstanding examples are selected from the Truck Acts, the Factory Acts, Mines Acts, Workmen's Compensation Acts, and the Minimum Wage legis-lation. The author's conclusion is that in a general Act the method of definition is superior to the method of enumeration, that the system of central inspectorate is advantageous despite its limita-tions and the new device of internal inspection or self-inspection, that legislation on arbitrary lines not preceded by experiment is dangerous. The tendency is for the devolution by Parliament of the working out of accepted principles to a definite Government department. The difficulties with regard to the fixing of a minimum wage are carefully explained, including references to its application through the Trade Boards Acts, 1909 and 1918; the Coal Mines Minimum Wage Act, 1912; the Corn Production Act, 1917.

The chapter dealing with State interference with regard to wages is probably one of the best in the book, particularly the sections showing the advantage held by the employer where the only existing wage agreements are verbal. Much detail is fur-nished respecting the work of the Trade Boards Acts (which bears the stamp of being derived from practical experience), the Check-weigher system in the mining trade, the application of the Truck Acts, and the use of tickets and the particulars clauses in the textile trades. The summary and review of the statutory enactments for the ascertainment of wages represent an excellent piece of work, but the author rightly emphasises the equal importance of proper statutory safeguards for the payment of wages, when ascertained, and also of proper statutory facilities for recovering wages when a breach of contract occurs.

Section III deals with the prohibitions, complete and partial, imposed by the State on the hours of labour. The important connection is pointed out between the regulations restricting excessive hours and provisions for securing the safety and health of the worker. The section is divided into four chapters. Chapters I and II review the restrictions upon the hours of labour from the first legislation down to the present generation. Chapters III and IV detail and explain the application of recent legislation and restrictions upon the hours of work of women, of that indefinable quantity, "young persons," and of adult males. These chapters leave a very good impression on the reader, the detail given being much richer and fuller from both a legal and a general point of view; in particular the important connection between the Education Acts, the Factory Acts and the Workshop Acts, and the pernicious system of half-time employment of children are well explained. The reader is surprised at the extent of powers vested in local authorities to legislate through bye-laws for the protection of children within their areas. In fact, one is left with the definite impression that the educationalist as well as the economist would do well to study the powers of local authorities in this respect, to examine the employment clauses in the Education Act, 1918, and the provisions of the Employment of Children Act, 1903. Some interesting proposals are made for co-ordination between the local authorities, the education authorities, the juvenile branches of the Employment Exchanges, and the School Medical Officers with a view to control satisfactorily the conditions under which young persons are employed. The sections dealing with the stringent legislation as regards meal-times, overtime, night work, and employment by shifts are specially interesting, and reveal not only the author's practical knowledge of the subject, but a general interest in the efficient working of regulations designed to ameliorate the conditions under which some industries are carried on.

Section IV is decidedly topical and of current interest, dealing with the action of the State to secure the safety of the worker. The necessity for rigid enforcement of precautions for the *prevention* of accidents is easily established by the alarming character of the statistics of accidents occurring in industries, especially in view of the high percentage, 25 per cent. to 40 per cent., of all industrial accidents which a recent annual report of the Chief Inspector of Factories adopts as the percentage of preventable accidents if all practicable means are taken. The number of

accidents which occur in industries in a single year is enormous; for example, in 1919 compensation was given in respect of 3,293 fatal cases, and 365,176 non-fatal cases. Expressed in terms of loss, inefficiency and wastage, this must represent a very serious drag upon the productive capacity of the nation. The problem of securing safety in industry has been attacked chiefly in two ways: (*a*) by compulsory provisions for safety inserted in the Factory Acts and the Mines Acts, making the employer liable to pay damages or compensation for accidents which really arise out of the work, and (*b*) by the inspection and investigation of accidents with a view to the discovery and institution of further preventive measures.

Since 1903 efforts have been made to utilise further voluntary efforts in the shop and safety committees, because experiments at home and abroad show that in addition to legal safeguards, reduction of accidents can best be secured by obtaining the interest and co-operation of the employees and officials through safety committees. In fact the prevention of accidents is now regarded as a sound business proposition in view of the compensation liabilities resting upon the employer and the effect on productive efficiency.

The interference of the State to secure the safety of the worker is dealt with in three chapters provided. Chapter I examines in detail the safety regulations laid down for factories, mines and railways. We suggest that few persons are aware of the minute detail in which these provisions are laid down, not only for mines, but also for factories, railways and other enterprises. The author must be congratulated not only upon the assembling of the data concerning the regulations relating to this subject, but also upon the skilful manner in which the facts and principles have been marshalled. The whole question of compensation to injured workers is examined. Even a casual knowledge of this matter and its prominence in the proceedings in the County Courts and Courts of Appeal indicate its extreme importance, not only to the employee, but also to the employer. The original liability for accident as existing under Common Law is carefully explained, in particular as regards the class of accidents for which the Common Law gave no remedy. The subject bristles with subtle difficulties, but the technical points of law involved are explained in such plain language that the layman readily appreciates the actual position. References to actual cases decided at law and illustrated in practice facilitate the author's explanation. The widened application of the Act of 1906 is well illus-

trated, together with the exact meaning of much-debated terms. We suggest that it would be a decided advantage if every employer and employee were supplied with a copy of the matter dealt with in Chapter II, not only on account of the importance of the subject to both parties, but also because of the excellent manner in which its legal and practical complexities are explained, *e.g.* the conditions under which liability arises, the extent of the injury or incapacity resulting, the amount of compensation legally secured to the various parties concerned, and the provisions under which payment is ensured. The review of recommendations of recent departmental committees on the question of workmen's compensation is also extremely interesting.

Chapter III deals with the notification of accidents, a dull subject, as the author readily observes, but one having the most important bearing upon the development of safety regulations, and, if we may say it, the question of workmen's compensation as well.

Section V deals with the interference of the State to secure the health of the worker employed in the various industries, especially those of a character inevitably dangerous to health, and to secure proper sanitation, ventilation and cleanliness. The orders relating to bakehouses and laundries are of interest to the general public as well as to the workers in the industries concerned. After nearly sixty years of progressively increasing legislation, elaborate provisions are now in operation. The first object has been to legislate against specific evils like industrial poisoning and specific industrial diseases, insuring early notice of the existence of the poisoning or the incipient disease, and making the medical man the first line of protection. The record furnished by the Health Register is a very valuable provision, and the welfare orders in force since 1917, carried out frequently in co-operation with the local Public Health Authorities, deserve very careful attention.

It is encouraging to note that the precautions employed are meeting with considerable success and reducing the incidence of industrial disease, yet the necessity for such precautions is proved by the fact that despite them, a considerable number of cases occur each year in which there is clear connection between the class of disease and the occupation concerned.

The book contains three useful appendices: (A) illustrating the difficulties of joint industrial councils without compulsory powers; the other appendix (B) shows by tables the Trade Board rates of wages in force or proposed on August 20, 1920;

and appendix C is a careful summary of recommendations of the Cave Committee on the Trade Boards Act.

We wish that this report had appeared before the present volume was passing through the press, as we believe its bearing on the subject-matter of the volume would have been well indicated by our author; we can only hope that report will serve as subject-matter for a further volume from his pen.

The index is complete and furnishes a ready means of reference for the reader.

In conclusion, we must state that the volume admirably fulfils the purpose indicated by the author. It will without doubt commend itself as a ready and readable source of reference not only to the legal practitioner involved in disputes between employer and employee, but also to the employer and the representatives of the working people who are directly interested in the vital subject of State interference with the conditions of employment, as also is every member of the body politic. In fact, we cannot recall any subject in which the community is more directly concerned, either from an economic or a social point of view. We believe that the matter will receive still more attention in the future because the present-day movement for extending State interference with the conditions of labour, especially as regards health, hours and safety, is a movement with moral as well as physical ends; and this, as the author generously points out in Section III, is in turn a part of the general movement for securing ampler conditions under which all classes, and in particular those from which the industrial workers are drawn, "can enjoy life and attain to a wider existence than is afforded by the erstwhile round of working, feeding and sleeping. . . ."

GEORGE R. CARTER

The Labour Party's Aim: a Criticism and a Restatement. By seven members of the Labour Party. (London: Allen and Unwin. Pp. 96. Price 1*s*. 6*d*.)

THERE is a remarkable and instructive contrast between the two ingredients of this volume, the criticism and the restatement.

On the one hand, the authors renounce many of the shibboleths commonly associated with the profession of Socialism. They discern the deceptive ambiguity of catchwords such as "Will of the People," "Right to Work," "Self-determination," "Workers of the World Unite." The doctors as well as the

dogmas of Socialism are treated with scant respect. We read of the "obscurities and fallacies" of Marx, of "the Marxian with his metaphysical gospel of the class war" and "the yet more metaphysical Communist." "The statements of Mr. Ramsay Macdonald and Mr. Snowden have never been comprehensive." The Guild Socialists "are in danger of repeating one idea only." Even the Webbs have unduly omitted "international issues" from their Socialist commonwealth. The writers themselves cannot be accused of insularity. They recognise the difficulties in the way of Socialism caused by the various mentality of foreign nations. They "take account of forces which go to the making of war." They ensue peace, yet not as blind pacificists, but tentatively, and prepared, with respect to this and other objects, in the application of general principles to take account of specific circumstances. At home, too, the authors' outlook is wide. They have not developed a "class-consciousness" which can recognise no merit in the ranks of the bourgeoisie. "No Socialist need fear to admit that the lives of the well-to-do are generally busy." Economic principles are not disowned. The population question is not passed over in silence. "No Socialist community could exist in which there was reckless and unthinking procreation of children."

On the other hand, the cardinal principle of Socialism as conceived by the authors, namely, the "abolition of capitalism," is reaffirmed by them with peculiar emphasis. Abolition is represented as the only remedy for three great evils which the institution called Capitalism involves. "First, the mass of the populations which live under it are unfree and insecure." "Second, our society is one of conspicuous inequality." "Third, service does not, while ownership does, constitute a recognised title to the right to control the whole productive process." The proximate means for abolishing these evils are stated more roundly and definitely than we might have expected from the tenor of the passages which we first cited. For example, "a Socialist society *must first eliminate insecurity by guaranteeing to all its members the essentials of civilised existence*" (author's italics). Again, the House of Lords is to be entirely abolished as wholly inconsistent with Socialist principles.

Without attempting to combine the two elements which we have distinguished, we commend them respectively to two classes of readers—those who, in seeking to escape from the evils attributed to Capitalism, go some way, but not the whole way, with our authors, and those who go as far or further in that direction.

There are those who, taught by Bentham or Sidgwick, admit the desirability of reducing the inequalities of wealth. But their aim at this object is obscured by prospects of difficulty and danger; and their high purposes lose the name of action. The faith and youthful ardour which inspires the restatement of the *Labour Party's Aims* should stimulate those Academic Socialists and incite them more earnestly to look out for and apply safe remedies for the undoubted evils pointed out by the authors. The negative portion of the work will be useful to another class of readers. They will reflect that if mistakes have been so often made by distinguished Socialists in the past, the like may again occur. The same cause, a limited experience and too narrow outlook on human affairs, may still operate. Is it certain that members of the Labour Party are conversant with the practice of investment and enterprise? Can they be trusted when they announce that "Socialist saving will be effected chiefly by deduction at the source" [after the manner of "directors of joint-stock enterprises"] rather than by investment out of income already paid to individuals? Would joint-stock enterprises be multiplied without the willingness of individuals to run the risk of investment? Would and should Governments run such risks on behalf the citizens? The reflections thus suggested instil the important lesson which Cromwell taught when he adjured the Kirk to think it possible they might be mistaken. The lesson which the authors indirectly convey has not been learnt perfectly by themselves. They retain much of what in Cromwell's phraseology might be described as "carnal confidence." We regard with great diffidence their ready remedies for the evils which they attribute to Capitalism. Their "guarantee" of a competence to all which we have mentioned might not be operative if the almost complete abolition of property which they contemplate should result in a general impoverishment such as that which fanatical theorists have brought about in Russia. To "lay down" that "there is no normal right of absolute individual ownership" might not suffice to obviate "the divorce of labour from control." Our doubt is fortified by the opinion of authorities to whom want of regard for the interests of Labour cannot be attributed. Mr. and Mrs. Webb in their remarkable brochure [1]

[1] *What Syndicalism Means: an Examination of the Origin and Motives of the Movement, with an Analysis of the Proposals for the Control of Industry.* By Sidney and Beatrice Webb. Published as a supplement to *The Crusade*, by the National Committee for the Prevention of Destitution (37 Norfolk Road, Strand), London, August 1912. (There is a French translation of the brochure in the Library of the British Museum.)

entitled *What Syndicalism Means* thus sum up their discussion of the proposal to abolish the wage-system: "We must frankly accept the situation that in such industries, for instance, as railways and shipping . . . engineering and textile manufactures and others run on a large scale, there is no way of getting rid of the wage-system—if by that is meant the service of men under the orders of others, in return for uniform weekly allowances which will bear no relation whatsoever to the actual productivity of their particular labour week by week." Not realising the situation thus clearly exhibited, the seven members of the Labour Party fail, in our judgment, to establish their main thesis; that the abolition of Capitalism is the one object to be aimed at, in preference to the reforms and palliatives suggested by other members of the Party.

F. Y. EDGEWORTH

Germany's Capacity to Pay. By H. G. MOULTON and C. E. MCGUIRE, with the aid of the Council and Staff of the Institute of Economics. (London: McGraw-Hill Publishing Co. 1923. Pp. xiii + 384, 8vo.)

THE detachment of the United States from European affairs happily does not extend to the intellectual sphere, and we have to thank American investigators for some of the most useful contributions which have yet been made to the study of the financial problems of Europe. The Institute of Economics has been established by the Carnegie Corporation of New York "with the single purpose of ascertaining the facts about current economic problems and of interpreting these facts for the people of the United States in the most simple and understandable form." This book admirably fulfils the aspiration of the Institute. When it claims that "the findings which it submits in this volume are believed to be as conclusive and trustworthy as would be those of any commission" the reviewer sharpens his critical pencil; but after careful study of the volume he will probably be prepared to endorse the claim. An official inquiry would, no doubt, have a greater effect upon public opinion. But it could hardly better the method, the honesty, thoroughness and lucidity of this essay.

Its seven chapters deal with: What paying Foreign Debts involves, Germany's International Balance of Accounts, What Germany has paid and how, German Foreign Trade Requirements, The Budgetary Problem, The German Monetary Situa-

tion, How France met the Indemnity of 1871, and International Implications of the Problem. Eight valuable Appendixes are devoted to Germany's International Trade and Financial Accounts, Estimates of Gains from the Sale of Paper Marks, Foreign Purchases of Urban Real Estate in Germany, Methods of Accounting of the Reparation Commission, Clearing House Operations, The Valuation Problem in connection with German Treaty Fulfilment, Budgetary and Taxation Questions, and a Summary of the Principal Official Proposals for Settlement of the Reparation Problem from 1920 to 1923. The information is so well condensed that a précis is impracticable within our limits of space, but it is impossible to praise too highly the vigilance and skill with which a mass of useful information has been got together and interpreted. We should have liked another Appendix setting out the powers and duties of the Reparation Commission and what it has done. What it has not done is to provide public opinion in this country and other countries with such adequate information as would have made private research of this character unnecessary.

The authors have a firm grasp of economic reasoning and show great skill in dealing with the difficult statistical problems involved. They prick the bubbles of many current fallacies and point out numerous pitfalls in the use of the figures available. They avoid dogmatism. The clarity of their exposition of past and present conditions is equalled by the modesty with which they refuse to predict the future. They assert fearlessly that the ability of Germany to develop an export surplus is the essence of the whole reparation problem, and that "the total capacity of Germany to pay will be measured by the excess of her exports of goods and services rendered to foreigners over the imports of goods and receipt of services from foreigners." It may be urged that the cancellation of blocks of external debt should be regarded as "receipt of services from foreigners"; but although the authors show clearly the difficulties and limitations of increased production and diminished consumption within Germany, they do not argue completely this side of the problem. The chapter on the Budgetary Problem is open to some criticism mainly upon the weight of emphasis, but many of the factors are not precisely ponderable and the qualitative analysis throughout leaves little to be desired. Everyone who wants to understand the Reparation question should make haste to read this book, and will feel grateful to the Institute for providing its staff with the leisure and means to carry out an inquiry which would

have been hardly a possible task to an unaided individual investigator.

If, as we hope, a new edition is called for, the authors might find it useful to consult the late Mr. O'Farrell's study of the payment of the French indemnity of 1871, and the reader would be helped by a bibliography of the sources which have been utilised.

HENRY HIGGS

Consequencias economicas de la guerra. Por FRANCISCO BERNIS. (Madrid: Marstre. 1923. Pp. 388.)

THE consequences of the Great War to the leading countries of Europe form the subject of this study. A certain priority is given to the experiences of Great Britain, in accordance with the author's predilection for the institutions of our country. This feeling is finely expressed in the dedication of the book: "To England, the country eternally young, ever originating new ideals and improved practice, model of the economic institutions of the Continent, and native land of the greatest economists." The statistical data showing the consequences of the War are given in fuller detail for Great Britain than for the other countries except perhaps for the author's own. These data are arranged under the leading heads of economic science, production, distribution, consumption, foreign trade, money and so forth. The statistics could, of course, be obtained from other sources; but there is some advantage in their presentation in a form which permits of comparisons. What cannot be obtained elsewhere is the author's original speculations about the causes and connections of the phenomena. We do not venture to offer an abstract of his theory, not having quite grasped the thread of his thought which connects the consequences of war with the conception of an economic cycle. It is much to be wished that this part of the volume could be presented in an English translation, so that the economic significance of Professor Bernis' theories might be appreciated by those who are even less familiar with the Spanish language than the present writer. The same suggestion may be made with reference to the chapter on Money and Banking. Professor Bernis, who plays a leading part in the conduct of the Bank of Spain, speaks with authority on this subject. Much is to be gained by following out his illustration of what we may call the Flow of Money. We become better able to answer questions like the following: If a manufacturer borrows a sum of

his bank and after a certain day returns a larger sum, where is this increment of money obtained? The zone in which "the metamorphosis of 100 into 110" takes place is not improperly termed a mysterious zone. In this connection Professor Bernis refers with approbation to Karl Marx's *Capital;* not, as we understand and hope, to the famous—or rather infamous—theory of "Surplus," but to some part of the Marxian lucubration which has evidently, says our author, not been read by his bitter critics. Professor Bernis speaks with authority on Marxian literature as having been the author some years ago of an appreciative study on "Karlos Marx." As it appears to us, our author has not done much for his case by appealing to Karl Marx. But he has done something for the reputation of Marx by adding to the small number of competent economists and talented writers who have expressed admiration for *Das Kapital.*

F. Y. EDGEWORTH

Trade, Expenditure, Taxation and Money. By FRANCIS W. HIRST. Johannesburg: Council of Education, Witwatersrand (London: Longmans, Green & Co. Pp. 70).

THIS little book is a reprint of certain of the lectures which Mr. Hirst delivered during his recent tour in South Africa. The first two dealt with the business outlook in South Africa and the need for economy, the later ones with taxation, currency and the foreign exchanges. It need hardly be said that Mr. Hirst's attitude to all these problems is sound enough, though there are one or two points in his exposition which may well be queried. Is it quite true that "the more the tax-gatherer collects, the less can the people expend" (p. 17 and also p. 21)? In the long run the welfare of the community must suffer if certain services, such as police protection, public health charges, education, etc., are not met, and in *these* cases at any rate it is not by any means certain that a shilling off the income tax is going to increase spending power 5 per cent. all round. Mr. Hirst is here rather too closely following the letter of "the old Gladstonian spirit of thrift" (p. 27). The problem of how much the State should take in taxes cannot be solved on these lines. Again, on p. 62 we read, "the new paper money [of South Africa] professes to be gold money—*sterling*—but it is not gold and it is not sterling. . . . Such an expression as 'the sterling exchanges' is an abuse of words, so long as the £1 note is a piece of paper inconvertible into gold." If Mr. Hirst chooses to define the "pound sterling" as

113 grains of fine gold, of course the paper pound is not gold nor sterling, but if any one chooses to say that the pound sterling was originally so much silver, was then so much gold, and is now a mere unit of account with only paper representatives, I do not see that Mr. Hirst can really complain. The important point is to attack inconvertibility and the whole policy which has tempted the most important gold-producing country to worship a paper calf, and this Mr. Hirst does admirably. Most trained economists will find this little book rather too elementary, but as an introduction to the important subjects with which it deals it ought to be useful. Even economists of more mature standing may find it interesting to have a record of how Mr. Hirst spent 10*s*. 4*d*. in June 1921 in the acquisition of a collection of foreign paper money (pp. 50, 51). Mr. Hirst would have saved a considerable amount if he had waited till June 1923, for he bought when marks were 265 to the £ and Austrian crowns 2400 !

T. E. GREGORY.

A Study in National Finance. By T. J. KIERNAN, M.A. (Dublin: The Talbot Press, 1923. Pp. 96.)

THERE is a manifest need, at the present time, for some work, exploring the Economic Consequences of the Irish Peace. There is need for an impartial and thorough examination, in the light of recent events, of the Financial Relations between Great Britain and the Free State on the one hand, and Northern Ireland on the other. There is need for some consideration of the problems of Double Taxation, arising between Great Britain and the Free State. There is need for an inquiry into the possibility of adjusting the Free State's tax system to its peculiar economic conditions. There is need for some pronouncement on the Irish Fiscal question. None of these matters, so far, has been handled thoroughly by economists—though by the time these lines appear in print, the report of the Fiscal Commission may have been issued.

Here, then, is a splendid opportunity for Irish economists. I took up Mr. Kiernan's work on *National Finance* full of expectation. I was destined to be disappointed. The Financial Relations between Great Britain and the Free State are not even mentioned. The Fiscal question is dismissed in a few hasty lines. Three chapters, indeed, are devoted to a discussion of Double Taxation—but they are mainly composed of large slices from the writings of Sir Josiah Stamp, the Royal Commission on the

Income Tax and the Finance Act of 1920. Two chapters are also given to "National Finance," of which the following passage is typical: "It is immaterial what treaties or republics we may win, we cannot become a real or self-respecting nation so long as we remain the employees of British capitalists. We consume British goods; it is because we are not a nation, except in sentiment. All the oratory from pulpit or platform, all the blood . . ." etc., etc.

To speak in general: for slovenly thinking, superficial treatment and emotional irrelevance, Mr. Kiernan's work would be hard to beat.

J. LEMBERGER

Gleitende Währung. By W. HARBURGER. (Munich: Duncker and Hunblot. 1923. Pp. viii + 80.)

Gullivers Währungssanierung. By W. A. GATZEN. (Munich: Ante-Portas Verlag. 1923. Pp. 80.)

Back to Prosperity. By HENRY and MARGARET LOWENFELD. (London: Effingham Wilson. 1923. Pp. 268.)

Die Völkerbank. By HANS HEYMANN. (Berlin: Ernst Rowohlt Verlag. 1922. Pp. 62.)

THE existence of fleas is defended on the ground that they provide animal creation with a constant stimulus to energy. The existence of currency cranks ought to be defended on much the same grounds. Were it not for them, would it be possible to maintain an active interest in so arid a subject as money? True, there are politicians, but world wars are of infrequent occurrence, whilst the monetary crank we have always with us, and the monetary disorders of the world have given him an unusual opportunity.

Herr Harburger provides us with an interesting suggestion. The evils of monetary inflation can be avoided—if only a country practises "planmässige" Inflation: that is, if it reckons with the fact that inflation raises prices. All that need be done is to adjust *all* contracts accordingly. The currency being increased by x units, raising prices by an amount y, all contracts (including contracts to repay deposits at banks) must be revised so that at the new level of prices each creditor receives the same volume of purchasing power. The result would be a taxless state in which creditors have justice done to them, taxation being replaced by the (temporary) gain from inflation.

This, of course, is the direction in which things have tended in Germany. But why, in this case, inflate? And, moreover, is it true that inflation under these conditions can go on indefinitely? The facts show that prices rise more than in proportion to the degree of inflation, owing to sellers anticipating the future, so that the value of the currency is finally nil.

Herr Gatzen's pamphlet cannot be compared with Herr Harburger's, which at any rate deals scientifically with its subject (for the greater part it is a mathematical statement of the case). Herr Gatzen provides us with an almost unreadable blank-verse poem of twenty-eight pages, in defence of stablisation, with an appendix (in English, German and French) consisting of "The World's Winding-up Plan." What is necessary is to draw up a "Sociological Balance Sheet," add up all fixed assets in terms of gold (including capitalised taxes) and compare them with liabilities (also in terms of gold). The writer continues, "The point is, that these two sides don't balance! But whereas for deep sociological reasons they must balance, they have to be made to balance!" Why a country should not owe more than the sum-total of its property is not stated—for the world as a whole obviously the two sides must balance. After all this nonsense, we get to the currency point—reckoning in terms of gold units. But what has the "Sociological Balance Sheet" to do with it?

The authors of *Back to Prosperity* belong to the Kitson-Oswald Stoll school of writers on Money. The gold standard is unstable, still more unstable is paper money. All that is necessary is for paper money and token coins to be issued, by a new corporation, which will have a monopoly of issue. The "new discovery" is simply that such money is to be issued only against first-class trade bills; for by this means the growth in the volume of money and the growth in the volume of goods which are the "cover" for the money are co-ordinated. There is nothing surprisingly new in this demand: from the days of the Bank Directors of 1810 down to the present day it has always seemed the right thing to practical men to issue more money, "so long as the security is good." "Such a supply of bills may not exist at present in newly constituted countries or in those which are inadequately developed commercially. But the advantages which the proposed facilities for the discounting of bills offer are so immense to all concerned that the demand is likely rapidly to create a superabundant supply of them. Experienced business men are not likely to anticipate difficulties

in this respect. . . . Money so issued can never interfere in any way whatsoever with prices of commodities and the progress of trade." It is seldom that authors so completely expose the dangers of their own proposals.

Dr. Heymann's pamphlet also rejects the necessity for a gold cover. "The real security for the obligations of a note-issuing bank lies in the ability to realise the credits granted by it." This is, of course, to confuse the banking standpoint with the currency one. The author desires an International Note-bank. He wants the notes issued by this Bank to be regulated "nach den besten Grundsätzen der Geldsschöpfungstheorie," again falling back on the idea that there can be no harm in issuing notes so long as there are "real values" behind them. In addition to the International Bank there are to be in each country Reconstruction Banks, making the actual loans. Long-period loans are to be secured by means of insurance policies, based on mutual insurance of the borrower's assets, acquired by means of the loans. The Reconstruction Banks are to issue debentures, payable in the new notes, so that these will be cancelled as the investment market takes over the task of financing. The idea of an international note is, of course, hopelessly impracticable: the principle of inconvertibility most dangerous, whilst the idea of mutual insurance seems to have been taken over by the author from current German practice.

T. E. GREGORY

Les Théories Monétaires de l'Economiste Cassel. By ALEXANDRE YOVANOVITCH-FOGLER. (Paris: Jouve & Cie. 1923. Pp. 154 and chart of exchanges.)

THE monetary theories of Professor Cassel, so far as they immediately concern the present situation, are too well known at first hand to English readers to require exposition by another writer, and criticism also has been sufficiently plentiful. But Dr. Yovanovitch-Fogler goes back to 1899 and shows how Professor Cassel's doctrine about the practical problem of the present is linked to his more general theory of price, and this will be useful to students of the subject to whom the original works and translations are inaccessible. It is rather startling to be told "la révolution doctrinaire en matière monétaire, commencée au début du vingtième siècle, n'a pas été inaugurée pas Knapp, mais par M. Cassel."

The book is full of misprints, having been to all appearance printed elsewhere than in France.

E. CANNAN

Principles of Comparative Economics. By DR. RADHAKAMAL MUKERJEE, with a Preface by M. RAPHAEL GEORGES-LEVY. (In two volumes. Vol. I, pp. xxviii + 336. Vol. II, pp. vi + 446. London : P. S. King & Son.)

NOT satisfied with the way in which the principles of economics are expounded by the writers of systematic treatises, the author, who combines an extensive knowledge of the three sciences, psychology, biology and sociology, with that of economics, undertakes in Vol. I, which is meant to be theoretical, to trace economic phenomena to their psychological, biological and physical origins, and to revise, in the light of the fuller knowledge so obtained, the fundamental principles of economics. He then proceeds to discuss the tenet that in every region there must be different economic categories and types, since the physical, biological and sociological conditions vary, and points out that the East is the home of communalism, the characteristic features of which, according to him, are "the emphasis laid on communal as against individual property in the family as well as the village, the attachment to the land and homestead, the co-operative organisation of village life and economy, the preference of man to the machine in crafts and workmanship, and lastly the strong predilection for human and social values in the scheme of social ethics and ideals." In Vol. II he elaborates the theory of communalism and describes at length the economic institutions of India with a view to illustrating the realisation of the ideal of communalism. Many points of criticism at once suggest themselves. Although it is true that the various branches of knowledge are intimately inter-related and the dependence of economics, especially, on psychology is great, yet the fact remains that economics and psychology are concerned with different things. The economist accepts the data supplied to him by psychology, but does not busy himself with the phenomena of consciousness as such. Further, it is not true to say that economists do not deal with man as he is but with a truncated human being called the economic man. They do nothing of the kind. They deal with a man of flesh and blood and not with an abstraction. Nothing could be clearer than what Marshall has to say on this matter in his *Principles of Economics*. The author, in spite of his excursions into the fields of psychology and biology, has not brought out any features of importance neglected by economists. On pp. 64 and 65 of Vol. I objection is raised to the determination of wages of labour without taking into account

the requirements of healthy family life and child-rearing. It is difficult to understand how the author could raise such an objection in view of the fact that all writers on Political Economy take this aspect of the matter into consideration when they are dealing with the question of the standard of living. Even at the risk of appearing pedantic we may quote the following remarks of Flux for the author's benefit. "Wages must in fact cover the necessaries of the wage-earners and the dependent members of the class as well, those too young to earn, those engaged in rearing children, those too old to support themselves." The author does not appear to appreciate the significance of the work of the leading English writers, and his attacks on them are pointless.

Vol. II is a eulogy of communal conditions of life. The industrial organisation of the countries of Western Europe is criticised without a sufficient understanding of the spirit underlying it. One may sympathise with the author that the railway engine, the steamship and the telegraph wire have broken the isolation of continents and disturbed the rest of peaceful little village communities, but it is difficult to see how a return to the simpler conditions of village life is possible when these destructive and highly desirable agencies are at work. The picture of the economic institutions of India that he draws is fanciful, and fits neither the fragmentary records that we possess of early conditions nor the living reality. What share in the culture of communal life could have been within the reach of ordinary persons like the members of the low castes? Even at the present day they dare not draw water from the same well, they dare not pollute the precincts of the village temple, they dare not take part in the feasts of the village, their children dare not sit with those of the higher castes to receive instruction in religious lore. As regards other communal benefits, the conduct of the village money-lender, not only now but from time immemorial, is an eloquent negation of the high maxims of the ethical code on which the author dwells. There is not, and there never was, organisation of agricultural credit on a co-operative and communal basis. Had it not been for the interference on the part of the foreign dispensers of law and justice, the bulk of the peasantry would have been delivered as chattels into the hands of the so-called suppliers of credit on a communal basis. One would like to know more from the author about the interesting process by means of which the Indians have conquered Matter through Spirit and Spirit through Matter. They have all along

prayed for more rain for the production of cows and wheat, but one may be pardoned for doubting whether any of these desirable goods have descended from above in response to such appeals. Famines have been a constant visitation, but until very recent times no measures of any importance were ever taken to divert the water of rivers flowing idly into the sea to agricultural land for the production of more cows and wheat. The author has been very much disturbed by the spectacle of the recent war and its after-results. Serious doubts arise in one's mind as to whether the European patients for whom the prescription is written will be allured by the excellence of communalism. Certain it is that the industrialists of Western India would like to cure the evils of Western civilisation by the introduction of more civilisation—a hair of the dog that bit them.

In conclusion, a tribute must be paid to the excellence of the volumes considered as a product of modern machines. They contain only a few misprints; *e. g.* on p. 272, Vol. I, Five-Feddan Law becomes Fide-Feddan Law; democratic becomes democrative, p. 5, Vol. II, and four pies appreciate in value and are equated to one anna on p. 184, Vol. II. The price of the two tomes is rather high in relation to the "specific worth" of their contents.

L. K. HYDER

The Co-operative Movement in India. By PROFESSOR PANCHANANDAS MUKHERJI. Third Edition. Calcutta: Thacker, Spink & Co., 1923. Pp. lxxx + 468.

THE third edition—which is, as the author explains, almost an entirely new book, so much of it has been rewritten—of Professor Mukherji's well-known story of the progress and extension of what is called "The Co-operative Movement in India" will be welcomed by readers familiar with the subject even more than for the undoubtedly interesting narrative (in a book of almost official standing, bound to be both full and accurate), for the encouraging indication given in the well-framed counsel and warnings offered, that the Government is fully alive to certain dangers which at the present moment, at what may be termed a turning-point in its history, undoubtedly threaten the "Movement," and that it is generally in agreement with those well-considered warnings.

The Co-operative Movement has in India run a course of singularly triumphal progress. Professor Mukherji is just a little incorrectly informed upon its origin and genesis. That

genesis was not in any wise due to the not very well conceived preachings and abortive experiments ventured upon in India here spoken of, but to the vigorous and judicious championship of the late Sir Charles Bernard, at that time at the head of the Revenue and Agricultural Department in the India Office, of a well-conceived proposal communicated to the Secretary of State in 1894. Readily seizing upon this proposal under sound expert advice, Sir Charles worked that idea into practical shape, and procured its acceptance in principle. Then came the Conference at Simla in 1900 and the masterly perfecting and adapting work done by distinguished public servants—it will suffice here to mention the names: "Ibbetson, Law, MacLagan and James Wilson," and the idea became ripe for execution.

The "Movement" has achieved signal, in fact so brilliant and encouraging success, as to inspire that widespread and eager desire for its extension to a large number of other interests—besides that of ryot life and husbandry to which it has up to the present remained confined—which is now so noticeable in India. That desire is perfectly justified, and the remarkable number of interests to which it is directed should be welcome. For there is an immense amount of good and useful work waiting to be done in India that Co-operation, and perhaps only Co-operation, can successfully accomplish. But that, as Professor Mukherji evidently perceives—though he does not quite put his dots on his "i's"—the "Co-operative Movement in India" is, in its present form, not qualified to accomplish. Judged from a genuinely co-operative point of view it is, in fact, still so imperfect and wanting in the required effectiveness, as scarcely to deserve the name of "Co-operative." For "Co-operation" distinctly implies that the work done under it is done by the beneficiaries themselves, and under their sole, unfettered direction, on their own full responsibility. And that the "Co-operative" work now done in India most evidently is not. It consists in truth only of "Co-operative" methods borrowed from elsewhere and applied—in some cases in direct opposition to accepted "Co-operative" principles—by two distinct bodies of persons—beneficiaries on one side, and directing non-beneficiaries and patrons on the other. The cause of this, of course, is, as the Professor rightly points out, the as yet absolutely hopeless ignorance of the mass of beneficiaries, that is, the ryots, who have not the least inkling of what true "Co-operation" means—coupled with the laudable, but to some extent dangerous, eagerness of those administering the move-

ment to produce "results." There is, as Professor Mukherji clearly perceives, and emphatically insists, only one way of repairing this regrettable state of things, that is, by going to the root of it, and greatly extending Education. But such Education, the education of the ryot, wants to be in the main not the academic method commended by our author on the recommendation—very one-sided it is—of Dr. August Müller, but really popular Education, what an American writer has termed "a veritable campaign of Education."

To produce the "results" sought the India officials have not unnaturally taken refuge in not a few cases in mechanical non-co-operative methods, which place the determination of what is to be done altogether out of the hands of the beneficiaries, who —as Mr. Collins points out—should above all things be taught "to think and act for themselves," in order to leave it in the hands of well-meaning but purely administering officers. Among such devices, perfectly suitable to the momentary position, but already taking too much the appearance of being designed for permanent acceptance, are the Guaranteeing Union and the concentration of all executive power in the keeping of Central Banks, which are in truth conceived as, not the masters, but the servants of the body of members. These things cannot, so our author points out, be permanently maintained without serious damage to the principle of Co-operation. Ryots must under all circumstances be made to learn what duties fall to their share as members, and led to execute them.

That is one point rightly put into prominence by Professor Mukherji.

However, the fact most in evidence to the public view in the present condition of the Indian "Co-operative Movement" is the feverish eagerness to apply "Co-operative" methods to, and infuse Co-operative spirit into, a large number of industries and businesses not yet brought under its sway, the number of which, as suggested, is really most creditable to Indian initiative. However, when we come to an examination of the undertakings suggested, one by one, we are faced with some really grotesque aberrations of judgment. Observation—we cannot call it "study"—of European methods of Co-operation has become a regular rage in India. Anglo-Indians appear captivated by the idea of singling out comparatively new departure for observation and recommendation. They see State help largely applied, and on the other hand democratic seizing upon such developments as the *bracciante* movement, and, often enough on the ground

of pure pop-visit study or hearsay information, recommend these things impressively for imitation, without considering the seamy side of what they praise up, or the difference in circumstances prevailing. Native Indians are given to diving into the wonders of English and Scotch Wholesale Co-operation, the splendour of which dazzles their eyes to the carrying away of all judgment, and return home to preach the assumed all-saving advantages of concentrating upon "Consumers'" Co-operation on Manchester and Glasgow lines even in India, with its low standards of life—which is like recommending Gujerat husbandry on the tops of Himalaya mountains. It would do these hyper-enthusiasts good to hear the comments of the Manchester Wholesalers, who recently visited India, upon proposals to connect Indian Distributive Co-operation in a business way with the Manchester wholesale trade.

India *wants* Distributive Co-operation, and ought to study gradually to acclimatise it. But that will have to be on the lines of Toad Lane, not of Balloon Street. Balloon Street splendours may come later.

Professor Mukherji perceives the unreasonableness of this newly generated megalomaniac raving, and warns against it seriously. He has good advice to give on alternative forms of Co-operation, and does excellent service in insisting upon the necessity of adopting Co-operative methods for the development of those "small" industries which are an Indian life-interest and, as we know from the highest authority, full of promise. He is thoroughly at home on this subject. Whether he is not over-sanguine in looking for early adoption of Labour Co-partnership in Indian factories, must be another question. But it is highly interesting to note the really rather surprising evidence of India Labour's readiness to adopt *bracciante* and similar methods of Co-operative Labour-autonomy, supported by Mr. Strickland's remarkable instance of such operation already practised in Cashmere. Professor Mukherji might have gone further than he does on the point of our fondness for copying foreign methods, and insisted that the time has now come when, a good enough foundation having been laid, Indian Co-operators should study to make Indian Co-operation, not a copy of European, but to give it a racy, native character, an Indian speciality.

Omnivorous devourer of Co-operative literature as he appears to be, the Professor, it seems, has still to learn that European Co-operative partisan writers cannot be depended on on all points implicitly. Allusions made by him to what is going on in France

and Germany suggest this. However, this is a very minor point in a literary product of unquestionable value.

HENRY W. WOLFF

A Critique of Economics. By O. FRED BOUCKE, Professor of Economics at Pennsylvania State College. (New York: The Macmillan Company. 1922. Pp. i–viii + 305.)

THE task which Professor Boucke has attempted in this work is one well worth attempting. Professor Boucke cannot, however, be congratulated on its successful accomplishment. He has read widely in Logic, Psychology and Epistemology, but the gift of communicating his accumulated knowledge to others he does not possess. He writes, too, in an appalling jargon. His work, however, is not without merit. It should be very useful as an irritant. Regarding it in this light, I content myself with stating its main points.

The object of *A Critique of Economics* is to show what changes are necessary to bring Economics into harmony with current facts and concepts in allied sciences. Statics and the mathematical method, price mechanism, laws of income, valuation and productivity—all of these hinge on theories, framed not by economists primarily, but by thinkers in alien fields. Changes in these theories must affect Economics. Especially important are changes in theories of human nature. The rejection of eighteenth-century "sensationalism" has proved fatal, not only to many economic "laws," but to all that is important in the orthodox methodology. The relation of induction to deduction, of statics to dynamics, and of statistics to induction must be restated. Professor Boucke attempts to use his extensive knowledge of recent psychological literature, not merely to criticise economic doctrine, but to sketch a new economic methodology.

In the criticism of economic doctrine, which occupies the first part of his work, Professor Boucke devoted chapters to Valuation, Price, Distribution and Production. His thesis is that the groundwork of orthodox Economics has gradually crumbled, because of changes in sciences, basic to the old discipline of catallactics. On the subject of valuation he concludes that the recent work of psychologists has shown clearly that intensities of wish or want, such as the economist is interested in, are not ascertainable by any known methods. Valuations and wants are too elusive, too complex and too individual to be useful for a

science of catallactics. The derivation of laws of price from a study of human nature must be held impossible. But even apart from its unsound psychological basis, the accepted theory of price can no longer hold for other reasons. Price is a resultant of far more facts or events than the traditional analysis has permitted us to understand. We have no right to picture all elements as working *through* supply and demand. A *variety* of facts, physical and otherwise, must be considered, if a law of price is to be discovered. An abstract price analysis has the virtue of simplicity, but what if this is its only virtue? So much for Price. With regard to Distribution if we revise our idea of causation in the light of prevailing conceptions of scientific knowledge, we must abandon a theory of imputation, either as a causal or an ethical fact, in order to find thereby the specific contributions made by an individual agent of production. Having disposed (as he believes) of the " fundamentals " in the accepted theory, Professor Boucke delivers his verdict on " Marginism." Now that he has conclusively shown the unsoundness of their psychological premises, " Marginists " must abandon the " Margin " as a standard for measuring differentials. "Margins," however, Professor Boucke admits, do mean a refinement of analysis, but they provide no ultimate scientific explanation. They are a device for dialectics, a fiction convenient for mathematicians engrossed in " functions," but hardly a solid basis for generalisations. Price, income and productivity laws, in fine, are not what they seem to be. Real quantitative laws have not been found in these divisions of Economics.

In the second part of his work Professor Boucke turns to problems of methodology. He examines the principles of inference from the psychological standpoint, though with due regard for the purely logical side. He discusses law and causation. He considers the methods by which science in general arrives at laws and decides upon causal connections. Finally he applies his conclusions to Economics in particular.

Professor Boucke's position is this : the orthodox methodology of Economics rests on that very psychology which few to-day deem worthy of serious consideration. Sensationalism, a formal logic, handed down from the Middle Ages and a theory of induction whose canons John Stuart Mill has given currency—these are the backbone of the orthodox methodology. But if Economics is to become, more strictly than heretofore, a factual science, reducing abstractions to a minimum and taking the world in substance as it is, the key to an economic methodology will lie

in modern psychology, in the observation of what science actually does to obtain its generalisations, and in a careful examination of law and causation, free from all historical bias. The distinction between causation and law, except as aspects of one and the same situation, the distinction between law and correlation, in the sense that one is causal, but not the other, must be abandoned. Abandoned, too, must be the sharp separation of induction and deduction and the designation of Economics as a deductive science with a purely conceptual basis. Lastly, we must cease to recognise two kinds of economic laws, the static and the dynamic, with the implication that the former is either self-sufficient or a necessary adjunct of economic research. If we wish to correlate social events as they occur, we cannot count on the restriction of the number of factors that the advocates of statics demand. Statics must be eliminated by studying things exactly as they are, irrespective of their intricacies.

J. LEMBERGER

Argonauts of the Western Pacific. By B. MALINOWSKI, Ph.D., D.Sc. With a Preface by Sir JAMES FRAZER, F.B.A., F.R.S. (London: Routledge; New York: Dutton & Co. 1922. Pp. xxxii + 527.)

"THE primitive economic man," as he appears in the handbooks of Economics of half a generation ago, is a rational being with very few needs, which he satisfies by the simple procedure of stretching out his hand for the abundant fruits of Nature—if he is fortunate enough to live in bounteous tropical countries—or of tightening his belt if he lives in less hospitable regions. Professor Karl Bücher of Leipzig (an economist endowed with more than usual insight and ethnological knowledge) has shown us in his *Industrial Evolution* an extremely simplified picture of primitive economic life. The earliest stage lacks, according to him, all economic organisation, is in fact pre-economic, and in it we have to imagine the savages collecting individually their food and their most primitive utilities. Then follows the stage of the self-sufficient household economy in which the tribe consists of domestic units only, each supplying its own wants. But the social school of economists (*cp.* Schwiedland *Anfänge und Wesen der Wirtschaft*, 3rd edition, Stuttgart, 1923), as well as some anthropologists, who took more careful stock of economic problems (Hobhouse, Vierkandt, Thurnwald), have come to challenge these conclusions and have shown that there is a vast borderland

between economic and other social activities, very important for the earlier stages of evolution and conspicuously differentiated and organised. Now a field ethnologist, educated and lecturing at the London School of Economics, is able to substantiate with considerable wealth of material these conclusions. In a significant preliminary article published in the ECONOMIC JOURNAL (March 1921), Dr. Malinowski examined some systems of Western Melanesia, and comes to the conclusion that " primitive economics are not by any means the simple matter we are generally led to suppose. In savage societies national economy certainly does not exist, if we mean by the term a system of free, competitive exchange of goods and services, with the interplay of supply and demand determining value and regulating all economic life." But " we find a state of affairs where production, exchange and consumption are socially organised and regulated by custom and where a special system of traditional economic values governs their activities and spurs them on to new efforts. This state of affairs might be called Tribal Economy."

In the present book Dr. Malinowski describes in a detailed manner a remarkable type of exchange called by the natives *Kula*. This exchange has a semi-ceremonial and semi-economic character. Economic in so far as the natives manufacture goods, organise some of their institutions and act under the stimulus of value. Ceremonial in so far as the objects have no practical use, but play some part in their tribal festivities and rites. The main value of these objects, however, which are ornaments but seldom used for personal decoration, lies in the traditional prestige associated with their possession. These objects of value travel along an extensive trading route which embraces many communities living on several archipelagoes, to the north-east of New Guinea. " Each of these articles, as it travels in its own direction on the closed circuit, meets on its way articles of the other class, and is constantly being exchanged for them. Every movement of the *Kula* articles, every detail of the transactions, is fixed and regulated by a set of traditional rules and conventions, and some acts of the *Kula* are accompanied by an elaborate ritual and magical ceremony."

Several features in this institution will no doubt appear of importance to economists. First the large size of its sociological and geographical extension. Accustomed as we are to think of native institutions in terms of considerable limitation, it is interesting to find among savages a truly international phenomenon, which must have contributed a great deal to the mixture

and spread of culture. For an economist this is the more remarkable, as the stimulus in this institution is provided by a specific desire for gain. The savage psychology of gain and value, the attitude of primitive man towards wealth, economic prizes and valuable ornaments is brought to light in this work by a detailed and convincing analysis. For Dr. Malinowski has studied the savages at close quarters, remaining in the same tribe for months and years and, in the words of Sir James Frazer, "he has done his work under the best conditions and in a manner calculated to secure the best possible results," living "as a native among the natives, watching them daily at work and at play, conversing with them in their tongue, and deriving all his information from the surest sources."

The results that we are given—a great number of magical spells, a series of intimate observations on economic psychology among savages, some statistics, synoptic tables and other documents—will serve to reconstruct our idea of primitive economic man. We are shown the strange mixture of greed and generosity, the expenditure of effort and the stinginess of foresight, the love to grasp and the passion to bestow, in all their complexity and unexpected interplay. In chap. vi. the author gives an altogether novel version of the psychology of gift and exchange, and shows that there exists an elaborate system of economic transactions, performed to satisfy the savages' vanity, his desire for display and a truly millionairish mania of keeping constantly in the public eye by sheer lavishness.

Again, the notion of primitive communism is shown up and dissected into its true constituent parts. We are left with the impression, that in a fight of principles a savage would rather range himself on the side of the bourgeois than of the bolshevik.

The book will prove valuable in many respects, not only to those who are interested in primitive economics or in industrial development, but also to those who wish to widen and test the conceptions of value, utility and the other fundamental principles of economics.

EUGENE SCHWIEDLAND

Histoire des Corporations de Métiers. By E. MARTIN SAINT-LÉON. (Librairie Felix Alcan, 30 fr.)

THE appearance of the third edition of M. Martin Saint-Léon's *Histoire des Corporations de Métiers* presumably means that what has long been the standard history of French gild organisation has now assumed its final form. It is a book to which there is

no complete parallel among English economic histories. Professor Unwin has written masterly studies of gild development in a particular city, London, and for the period from the fifteenth to the seventeenth centuries. Professor Ashley has given one of his most illuminating chapters to the subject. A number of different writers have produced accounts of the gild history of particular towns and trades. But since Brentano first broke new ground in his celebrated essay nearly two generations ago no one, so far as I am aware, has attempted to tell the story of English gilds from start to finish in the manner which M. Saint-Léon has undertaken for France.

This method has its disadvantages. Like the phrases "open-field tillage" and "enclosure," the word "gild" implied widely different types of organisation at different periods, and the reader who follows it from the twelfth century to the eighteenth must constantly remind himself that, though the name remains, the fact has changed. Nor can any institution be handled satisfactorily unless it is related to the other phases of the economic environment in a way which is hardly possible in a history covering, if one includes the introductory chapters on origins, the best part of a thousand years. But, when all is said, the advantages of a continuous history, at least in M. Saint-Léon's hands, outweigh its drawbacks. To judge a movement or an institution fairly one must have its whole life before one. Some not unimportant misconceptions as to the English "gild system"—if a discredited phrase may be permitted—would have been avoided, if it had been studied in the period of its decay in the later seventeenth and eighteenth centuries as fully as at its zenith in the later Middle Ages; and not the least instructive chapters of M. Saint-Léon's book are those in which the interest is almost pathological—in which the "fraternities" (though the word does not seem to have been used in France) are shown labouring heavily in the organised torpor of their economic egotism, the butt of intellectuals and an offence to social reformers. When the length of the period covered is considered, the quality of the book is very high. The author, in addition to being himself familiar with the more important original sources, has kept abreast with scholarship in France and abroad, with results which are incorporated in this edition. The apology with which, on page 618, he begins an "epilogue" of over 140 pages, carrying the history of the "idée corporative" from 1791 through the trade union and syndicalist movements down to 1922, is not needed; for the recent history, though necessarily somewhat summary, is

excellently done. Altogether, M. Saint-Léon's book deserves to stand side by side with those of Levasseur as indispensable to every student of the economic and social history of France.

It would be absurd for one who has not travelled over the same ground to attempt to discuss M. Saint-Léon's conclusions in detail. The gild merchant first appears in France at St. Omer and Valenciennes in the last quarter of the eleventh century—the date when the earliest English gild merchant (that of Burford) is first mentioned, and at the beginning of the next century the Parisian *marchands de l'eau*, or Hans, are in possession of large privileges. The earliest craft gild appears to be that of the cordwainers of Rouen, mentioned in a charter of Henry I; a little later several craft gilds are found at Paris, and in the last half of the century they spread rapidly. The points which have produced most discussion in connection with the problem of origins are probably two:—Can any connection be traced between French gilds and Roman *collegia?* what relations had the craft gild to the gild merchant? On the first, M. Saint-Léon steers a middle course, arguing that in certain cases (*e. g.* the Parisian *marchands de l'eau*) direct descent is probable, dismissing the theory, which attempts to find a seigneurial origin for gilds, and urging that their origin was in fact complex—lingering Gallo-Roman traditions of professional association combining with Germanic and Christian influences, and both being stirred into life by the communal movement. On the second he speaks with perhaps unnecessary diffidence. As far as England is concerned, Bretano's view that the craft gilds originated in a revolt of artisans against a dominant class of merchants has long been discarded, and M. Saint-Léon does not adduce any evidence suggesting that it is more applicable to France.

Nearly three hundred pages, including appendices on the history of particular localities, are given to gild organisation in the thirteenth, fourteenth and fifteenth centuries. This part of the book is admirable. An analysis is offered of gild rules, of the relation of gilds to public authorities, of the different classes composing them, and of the policy of the state when, after the middle of the fourteenth century, state policy becomes important. Naturally, it raises points on which opinions will differ. "Étudier l'histoire des métiers, c'est donc étudier dans ses sources les plus profondes l'histoire du peuple." But what proportion did the members of craft-gilds form of the total population of mediæval France or England? It is conceivable, at least, that they were a comparatively small working-

class aristocracy. M. Saint-Léon supplies some valuable figures from a tax roll of 1292, which throw some light on these questions. The total number of gilds then in existence at Paris appears to have been 128; the total number of masters is estimated as approximately 5000 out of a population which, it is suggested, may have been about 215,000. He is doubtless correct in emphasising the smallness of the number of journeymen in comparison with that of the masters. But is it equally certain "qu'au moyen âge (abstraction faite des villes de Flandre) il n'existait par encore un prolétariat"? Italy should be added to Flanders as an exception, and, even so, the matter is one on which a good deal more evidence is wanted. It may be questioned, again, whether M. Saint-Léon's interpretation of gild-rules as to hours and wages is not somewhat too optimistic. "Du reste, tout ce petit monde antique était fortement imbu des idées chrétiennes sur le juste salaire et le juste prie; . . . un règle puissante s'imposait à tous et d'une manière générale exigeait pour chacun le pain quotidien promis par l'Evangele." The document which he quotes to illustrate the fixing of a *minimum* wage is an arbitration of 1270 for the weavers. But, owing to the peculiar organisation of the textile trades, it was common in England, at least, to fix minimum rates for weavers at a time when maximum rates were being fixed for workers in other industries, and it would not be safe to infer that this particular case represented a general policy. The great ordinance of 1351, which is the French version of the Statute of Labourers, fixed a maximum wage, and it is probable that, as in England, gilds, governed as they were by masters, normally did the same. The truth is that in the thirteenth and fourteenth centuries the wage-problem, owing to the ease with which a man could set up as master, was normally one of the scarcity of labour rather than of its abundance.

Down to the end of the sixteenth century the gild history of France goes, with minor variations, through almost exactly the same phases as that of England: the extraordinary similarity in the economic history of European nations suggests, indeed, how misleading economic histories which are planned on lines of nationality almost inevitably are. Gild ordinances are almost identical; in the fifteenth century there is the same closing of the ranks and imposition of heavy charges on the would-be master, the same rise of journeymen's organisations within the gilds, and the same attempts of the authorities to suppress them. In France as in England, the State assumes a new relation to industry in the sixteenth century, and, in doing so, finds itself committed to interfering with

gild organisation, limits in 1577 the fees which may be demanded of apprentices, and tries to make the gilds the instrument of a national system of industrial control by the ordinances of 1581 and 1597. The latter present some analogy to the policy of the Statute of Artificers; still more, perhaps, do they resemble the various measures by which in the sixteenth century Parliament attempted to bring rural industries under municipal control. The special characteristic of the later gild history of France is the predominance at every turn of the fiscal interests of the State, which has its English parallels in the screw which Elizabeth and the first two Stuarts turned on the City Companies, but which the civil war prevented from reaching the portentous heights in England which it achieved in France. The expedient of selling *lettres de maîtrise* had been begun as early as the reign of Louis XI. In the seventeenth century the gilds slid into the position of being the milch cows of the Government. Colbert's edict of 1673 requiring general enrolment in gilds was merely one of a long series of similar measures the objects of which, however, concealed beneath lofty phrases, were primarily fiscal.

The history of the French gilds in the eighteenth century is a melancholy one. But it is highly instructive to English readers. For, while in contemporary England the remnants of gild organisation were little more than an antiquarian curiosity which might arouse the indignation of economists like Tucker, but which had little practical importance, in France the gilds stood stiffly on their ancient privileges, were attacked and defended on high grounds of social theory, and, finally, fell with a crash in 1791. The controversy lasted for about forty years, became a test case in the struggle between reformers and the economic policy of the *ancienne régime*, and enlisted men of first-rate ability on both sides of the question. Thanks to the famous edict of Turgot, and to the victory of its policy after the fall of its author, the arguments of the prosecution are known better than those of the defence. But the champions of the latter were prepared to meet the storm by making concessions; Delacroix's pamphlet, which appeared in 1776, was a plea for conservative reform; and M. Saint-Léon evidently thinks it a misfortune that Turgot did not attempt to find a compromise: "Supprimer, au lieu de les conserver en les transformant, les institutions corporatives . . . abandonner l'artisan aux suggestions mauvaises de l'isolement social et de l'individualisme, c'était peut-être . . . faire acte d'imprévoyance et léguer à l'avenir un dangereux héritage." The verdict is not unlike that of the Hammonds on the Enclosure

Acts, and it finds some support in the large number of *cahiers* which demanded in 1789 that gilds and companies should be reformed without being abolished. Whether that policy was possible in the seventies is another question: Maurepas' experiment in reconstruction, which followed the fall of Turgot, does not seem to have been a success. In 1791 it was too late even to suggest it. They were abolished in March of that year as an incident in the passage of a finance bill. Three months later the policy of freedom of contract was carried to its logical conclusion in the measure introduced by le Chapelier forbidding "citizens of the same profession" to take common action *sur leur prétendus intérêts communs.*

The phrase, with its vast implications, is a landmark in social theory. The remaining chapters of M. Saint-Léon's work, in which he describes the trade union movement and legislation of the nineteenth century, are a commentary upon it. Admirable in their lucidity and detachment, they are a fitting conclusion to a fascinating book.

R. H. TAWNEY

NOTES AND MEMORANDA

League of Nations: Economic and Financial Commission

Report on Double Taxation submitted to the Financial Committee by Professors Bruins, Einaudi, Seligman, and Josiah Stamp, K.B.E.[1]

An unfettered local income tax system is unthinkable in this country for the simple reason that, important as are the interests of each local authority, they are, quite rightly, regarded as of far less importance than the common interests of the nation. In the international field there is no such super-national authority, and, as a consequence, the task of correlation is at once more delicate and more difficult. So, with a view to finding some solution to the "Double Taxation" problem, the League of Nations Financial Committee appointed in 1921 a committee of four "experts"—the authors of this Report—to report upon the matter. To sum up the terms of reference, they were asked to explore the economic consequences of "double taxation," to formulate general principles as a basis of possible international agreement, and to report on methods.

After correspondence, and a conference at Geneva in March 1923, the "experts" made their report, which is divided into three parts:

(1) Economic consequences of International Double Taxation.

(2) General Principles which govern International competence in Taxation.

(3) Application of the Foregoing Principles.

And these three parts, as might have been expected, make up a very incomplete whole. In view of the fact that the interests of Italy, Holland, the United States and this country all differ—in particular those of Italy from the others—it is surprising, however, that agreement should have been reached at all.

Part I comprises seventeen pages, and although there is little in it that will be new to the expert reader, it may be said to be the most careful and complete analysis of the consequences of

[1] League of Nations Publication, E.F.S., 73, F, 19. Two shillings.

"double taxation" that has been published. Two classes of consequences are distinguished:

(1) Taxes as burdens upon existing economic rewards;
(2) Taxes as a burden upon new or potential economic intercourse;

and it is pointed out that for most administrations—they might well have said all—it is well-nigh impossible to differentiate the relief given "for all future time" between two sections of one class of wealth according to a date of origin. They endorse the conclusions expressed in the *Note on the Effect of Double Taxation* [1] as to the effect of new or increased taxation upon capital invested from abroad prior to and after the tax. The position is summed up as:

(1) Any non-resident investor placing his investment in Morania (the country of investment), knowing it will be subject to taxation there, throws back upon the borrower the burden of the Moranian tax primarily or apparently placed upon himself (the non-resident investor), and, as an investor, is not in this event subject to double taxation (Paragraph 8 of the Note).
(2) Taxation imposed in Morania on investments placed there by investors of other countries will act as an impediment to the movement of capital to Morania. The reason of this restriction of movement is that a marginal quantity of the (*e.g.*) British capital has by reason of the imposition of the Moranian tax (contracted with freedom from such taxation) been induced to seek other fields of investment (Paragraph 12 of the Note).
(3) Any relief from double taxation given in order to encourage the movement of capital which, in the absence of such relief, finds it unprofitable to move must be extended on practical grounds to all investments, whether old ones or new.
(4) Taxation imposed in the country of investment, after the date of investment, of a weight greater than that anticipated or provided for by the investor will impose double taxation in a true sense, from which the investor will find it difficult to escape owing to the effect of amortisation (Paragraph 21 of the Note).

The above being adopted as premises, it is contended that the following conclusions are their logical outcome:

(1) Taxation in existence at the time of investment is no burden, but is in the nature of a barrier to investment.
(2) Investments in existence when taxation is imposed suffer a burden.

[1] *Note on the Effect of Double Taxation upon the Placing of Investments Abroad.* Submitted by Sir B. P. Blackett. (League of Nations, E.F.S., 16a, A, 16a.)

The general result of the inquiry into the position of the foreign investor is to indicate that the power to tax him is very limited so far as Morania, a debtor country, is concerned; whilst the new tax will be an economic handicap to the Moranians themselves, by increasing the foreign interest rate and, consequentially, also the local interest rate. Upon the whole, then, a debtor country like Morania should be exceedingly chary of levying a new tax upon foreign investments.

The authors, however, point out that there are some limitations to the extreme doctrine that the investor throws back upon the debtor country the burden of the new tax, and six cases are mentioned. Of these, one in particular is worthy of mention. It arises from the fact that there is often an element of compulsion about the employment of additional capital in an existing business, and, although the vagaries of foreign Governments are one of the risks of foreign investment, it may be admitted that this is perhaps the hardest case of all. The factor of compulsion is particularly prominent where the main part of the capital employed is represented by immovable assets, *e. g.* the case of a telephone company in a growing centre. Here the need for additional capital expenditure tends to be continuous, and it may well be that the foreigner cannot "get out" except upon ruinous conditions. A new income tax may well be a crushing burden. But so may a new municipal tax based upon gross receipts, especially where, as often happens, the power to increase rates is refused.

Summing up, the experts agree :

(1) That in most cases the imposition of a new or higher tax penalises the existing non-resident investor.

(2) That subject to certain limitations, it prevents non-residents from making a new investment unless the terms offered by the borrowing country are such as really to throw back the burden of the tax upon the taxing country.

As regards the imperfection in amortisation, the conclusion come to is that it is unimportant. One of the factors mentioned will, however, strike anyone who has considered the matter as being the reverse of unimportant. Up till now it has been assumed that the non-resident investor who did not anticipate the tax will be hit, and that if he tries to sell out the loss will be capitalised in the price. But this will not be the case if the tax is part of a general Moranian income tax. A resident there can buy the investment and only pay the one tax. In other words, the capitalisation doctrine in such cases only holds as regards

non-residents in so far as the throwing of investments upon the Moranian market may depress local capital values and so increase the local rate of interest.

The Report puts quite well a conclusion which, whilst not new, is generally overlooked:

> Hence, double taxation sets up, first, a tendency for new investments to be restricted to capital available within the borders of the country itself. It acts like a tariff for concentrating manufacture within the country and restricting international intercourse. It sets up a tendency for old investments to change ownership from foreigners to Moranian investors and to make the country still more self-contained.

Upon the whole it may be said that, looking at the matter from the standpoint of a pre-eminently creditor country, there is very little case for upsetting an efficient tax system in order to secure any mild benefits that may arise from "double taxation" relief. There is, however, another reaction of which the experts are well aware, which should be mentioned. The non-resident owner of the investment can avoid the double tax by becoming a Moranian or, at any rate, taking himself outside the ambit of the British tax. In the case of a business, this means the transfer of "control," a development which has been somewhat marked of recent years and is supplemented by numerous cases where, with a view to escaping taxation, enterprises that would otherwise be British are foreign *ab initio.*

The Second Part of the Report deals with "General Principles which govern International Competence in Taxation," and the preliminary objection may be taken that the heading is misleading. It is true that by the terms of reference the experts were asked to try and formulate general principles, but it would surely have been more scientific for them to have admitted as a preliminary that there are no such principles universally recognised as such and that what they have done is to try and formulate some. This, however, is not the attitude adopted and, as a consequence, there is much "telling" where "arguing" would perhaps have been more warranted.

After a brief reference to earlier theories the "faculty theory or theory of ability to pay" is declared to hold the field to-day. To the objection that faculty does not attach to things and many taxes are imposed upon things, the old rejoinder is made that "all taxes are ultimately paid by persons." But the objection may be urged that whilst the experts are professedly dealing with taxation in general, their analysis is scarcely

applicable to a large part of the subject. Protective tariffs take small count of resultant misery amongst foreign producers and not much more of the hardship to consumers; whilst taxes like the Indian salt tax show that necessity has to ignore consequences. Of course, amongst the residents of a rich country, there may be a careful graduation according to faculty, but taking the world as a whole there is and has been scant recognition of the capacity of non-residents. There is a further point. Taxes laid upon things must, of course, be paid by persons; but the ordinary layman is apt to overlook the fact that a company with 10,000 individuals as shareholders is but one legal person. By person he means individual, and it is not true that all taxes are paid by individuals. The taxation as income of the whole of the profits of a company, irrespective of the fact that a large part may be capitalised and never distributed as dividends to the shareholders, is a very important element in the practical aspect of international income taxation, and is, as at least one of the experts knows quite well, a factor which leads an increasing number of British companies to "go foreign."

Upon what principle, then, should a person be taxed whose interests are international? A number of principles are examined. Discussing political allegiance, it is suggested, although no evidence is given, that in modern times the force of political allegiance has been weakened. Whether this is so or not would appear to be immaterial. As a principle of taxation political allegiance by itself is not effective, for the simple and sufficient reason that in all ages collection of taxes without the agency of force has been a barren business. Without an effective "remedium" the "jus" is not worth much.

Temporary residence is next considered as the criterion of taxability and dismissed, the commercial traveller being used as the case which reduces it to absurdity. But sovereignty, as exemplified by a robber chief astride a caravan route, would not think it absurd at all. What the latter would object to is sharing his levy with the other Governments within whose territory his "guests" had been trading. Temporary residence breaks down more as a practical proposition than anything else.

The third possible principle discussed is that of domicile or permanent residence; and it is claimed that this gets further away from the idea of political allegiance and closer to that of economic obligation. This principle, in its turn, is found to be unsatisfactory. "For, in the first place, a large part of the property in the town"—"town" seems to be a slip for

"country"—"may be owned by outsiders," and permanent residents might be unable to furnish sufficient revenue; whilst if the income of the residents is derived mainly from outside sources, the Home Government would gain at the expense of its neighbours. The absentee Irish landlords are given as an illustration of the fact that there may be tax obligations upon non-residents, whilst it is quite clear that neither Brighton nor Doncaster could give up the main source of its revenue.

Location or origin is next examined and the difficulties and drawbacks pointed out. The authors conclude that this, therefore, cannot be regarded as the sole test. Residents owe some duty to the place where they live irrespective of the sources whence their income is derived.

> Practically, therefore, apart from the question of nationality, which still plays a minor rôle, the choice lies between the principle of domicile and that of location or origin. Taking the field of taxation as a whole, the reason why tax authorities waver between these two principles is that each may be considered as part of the still broader principle of *economic allegiance*, as against the original doctrine of political allegiance. A part of the total sum paid according to the ability of a person ought to reach the competing authorities according to his economic interest under each authority. The ideal solution is that the individual's whole faculty should be taxed, but that it should be taxed only once, and that the liability should be divided among the tax districts according to his relative interests in each.

The above passage is, perhaps, the most important in the whole Report. In it is born the new principle—Economic Allegiance. This is expounded at considerable length and its many virtues described. Nevertheless, the reader may, perhaps, be excused if he remains entirely sceptical, especially in view of its authors' confession at a later stage. As regards the suggestion that this new principle has replaced the principle of political allegiance, it is not proved that the latter ever was a dominant principle. Allegiance implies mutual obligations of a definite character, but there does not seem to have been much of this relationship between the King and the Jews prior to their expulsion, whilst the claim by the Crown that the taxation of foreign merchants was a matter of prerogative and outside the province of Parliament was an obstacle to the latter's control of taxation. As a substitute for political allegiance it is submitted that *the* underlying principle of taxation is sovereignty and that this covers all taxes, whether income taxes or tariffs. It may well be

that the ideal tax system, which, after all, must be a matter of results, can be most nearly approached by an eclectic method, and, in view of the multifarious taxes in existence, the statement that the tax authorities waver between domicile and origin as *the* principle is hard to understand, unless by "tax authorities" is meant not "taxing authorities," but "authorities on taxation," *e. g.* the experts.

The last two sections of the passage are somewhat ambiguous if taken together. The penultimate one suggests an international conception of faculty and a uniform scale of tax rates. Faculty, from a survey of international taxation, is about as definite as "the size of a nut." In the case of income arising in different states with different conceptions of taxable capacity, which of the conceptions is to be the determining factor? The last sentence suggests that income is to be apportioned amongst the countries in which it arises and that each should deal with its share independently; and this interpretation finds support in later parts of the Report. Such a scheme is open to as many objections as the other. It is a moot point whether the individual ability of the non-resident should be considered in the case of income taxation any more than in the case of a tariff. Assuming different effective rates of tax, human nature would cause a tendency for income to flourish most where the burden was lightest, and this tendency would, of course, be resisted by the administrations affected. The amount of irritation caused to the taxpayer would inevitably be great; but the practical outcome would be like a granting of the old prayer, "If I must die, let my death come from Spain."

Having laid down the principle of "economic allegiance," the authors proceed to examine it, and the problem is stated to consist in ascertaining where the true economic interests of the individual are to be found :

> It is only after an analysis of the constituent elements of this economic allegiance that we shall be able to determine where a person ought to be taxed or how the division ought to be made as between the various sovereignties that impose the tax.

Starting with the assumption that "economic allegiance" is the principle to be adopted by the competing authorities, the authors proceed to subdivide it into four elements which are subsequently embodied in four test questions :

(1) Where is the yield physically or economically produced?

(2) Where are the final results of the process as a complete production of wealth actually to be found?

> (3) Where can the rights to the handing over of these results be enforced?
>
> (4) Where is the wealth spent or consumed or otherwise disposed of?

With regard to these questions the Report states:

> It is important, therefore, to keep in mind the exact meaning of each of the four factors in economic allegiance, and in every particular case to attempt to estimate the relative weight to be attached to each of them. Upon the decision as to the relative importance of these four factors depends the entire question of taxation or remission.

The authors, however, realise that there may be practical difficulties. Assuming that the relative weights have been ascertained, the question is what to do with them when you have got them.

> Where all four factors are in agreement, no difficulty can arise; where they are in disagreement, a choice must be made between them or a compromise must be adopted.

Discussing the relevance of the foregoing to different taxes, it is pointed out that countries with different systems will have divergent outlooks. In the case of the income tax, where the ultimate profit is dependent upon a series of operations in different countries, it is admitted that the allocation of profit to the different stages "may be said almost to baffle analysis." As an actual practical matter the "almost" would seem to be unwarranted.

> In so far, therefore, as the problem of taxation is a problem of taxing income, it may well be that the determination of these different classes of economic allegiance is not merely exceedingly difficult in practice, but not always determinable in economic theory.

If the problem is difficult in the case of a highly developed income tax with an all-inclusive conception of income, it is even more so in the case of the countries which are more backward.

> Countries of origin, such as tropical and agricultural countries, see only the beginnings of production; recipients of the final wealth live abroad. Are such countries to be at the mercy of every kind of legal conception of income and income taxation in all the different countries with which they have relations before they know what their taxation is to be?

The answer given is that such countries would refuse to be bothered with the problem of ultimate profit or loss to some unknown foreign resident. Summing up the whole position

resultant from the endeavour to apply their new principle of "economic allegiance" with its four elements, the conclusion arrived at is that whilst of real value in dealing with capital wealth taxes and other taxes upon mere stages of wealth, modern income is such a composite product and such a complex conception that "it is difficult to establish that such an analysis can have great practical value." In other words, the experts admit that whilst they have succeeded in discovering *the* principle they were asked to discover it has one drawback. As a practical proposition it won't work.

The authors now proceed to make a reasoned classification of different kinds of income in order to show what is the predominant element in each. Some of the reasoning is of doubtful validity, *e.g.* the part played by the shareholder seems greatly exaggerated, but the tabulated result is at least interesting. It is summed up as

> All corporeal wealth, including immovables and tangible movables except III*b*,[1] would be assigned predominantly or wholly to the place of origin; all intangible wealth, except V*a* (property), would be assigned predominantly or wholly to domicile or residence.

Exact allocation is admitted to be well-nigh impossible, but it is suggested that a certain rough justice could be obtained by turning over all the categories of the first division completely to the place of origin and by turning over all the categories of the second division completely to the place of residence. It is claimed that if this were done, what a country would lose upon the one hand it would roughly gain upon the other.

These conclusions and suggestions can only be described as remarkable. The list of investments classified omits some of the most important, possibly because of difficulty. "Foreign and Colonial Rails," for instance, contribute millions to the British income tax. Again, it is not clear whether the self-denying ordinance is to apply irrespective of the question whether or not the country to which a category is assigned imposes a parallel tax; whilst the suggestion of losses balancing gains would seem to be quite unwarranted so far as a pre-eminently creditor country like Britain is concerned.

Part III of the Report is devoted to "Application of the Foregoing Principles," although the reader will be by now somewhat perplexed as to what are the principles that have been

[1] Money, jewellery, furniture, etc.

established. In it four possible alternatives are propounded and discussed after some preliminary observations in which origin rather than residence is declared to be the "instinctive" principle. Summarising the alternatives given, they are:

(1) "A country might deduct from the tax due from its residents any tax paid by them on their income from abroad," *i. e.* paid abroad, as is done by the U.S.A.

It is stated that if this course were followed Governments need no longer agree to make their loans free of tax to non-residents, but this is scarcely the case unless a similar tax exists in the lender's country.

This is called "The method of deduction from income from abroad."

(2) The country of origin should exempt all non-residents from taxation on income arising within its borders.

This is called "The method of exemption for income going abroad."

(3) Specific taxes to be divided between the country of origin and the country of residence. The method of "half-and-half" is suggested.

This is called "The method of division of the tax."

(4) By convention it might be determined to attach origin taxation specifically and wholly to particular classes of investments, but to exempt the non-resident in respect of income derived from "business securities."

The country of residence would allow the whole of the foreign tax as a deduction from its income tax on the resident in respect of such sources of income, but would charge other sources in full.

This last proposal is different from that made in connection with the classification by categories, because in lieu of giving up the right to tax a set-off of the foreign tax is to be allowed. This, where the foreign tax was at a higher rate, would mean that the country of residence would get less tax than if it exempted the "origin" income altogether. It is true that the Report suggests that it might be desirable to limit the power of the country of origin "to levy in future specially heavy origin taxes which would unduly deplete the exchequer of the country of residence"; but such depletion would arise in every case where the origin

rate was the higher, and the use of the word "unduly" is interesting. *It implies the limited right of the holder of foreign investments to call upon the general body of taxpayers to supplement his income by way of compensation for taxes paid abroad.*

This fourth alternative is called "The method of classification and assignment of sources."

Discussing the application of these four alternatives to the Estate Duties, it is pointed out that the practical element of enforceability has to be taken into account. The conclusion reached is that Method 4 should be adopted, but if it should prove too complicated, then Method 3. The country of residence is to apply to the entire estate the appropriate rate of tax and then deduct from the total the origin tax, provided that the latter does not exceed the residence tax on the same part of the estate. It is not made clear, however, why "depletion" should be avoided here and not in the case of income taxes.

Other taxes upon funded wealth, such as the capital levy, the general property tax, and other "impersonal taxes" on property, produce, or business, are to be dealt with upon the same principle as Estate Duties.

Applying their "principles" to the taxation of income, the experts state Method 4 to be soundest in theory, but in view of the problem of getting a quantitative assignment of resultant income amongst the competing countries, any attempt at precision results in impracticability.

Method 3 is held to be attractive in that a broad line is taken and each country is called to give up something. But, in the first place, the countries interested have to agree as to their respective sacrifices, and a proportion that might be reasonable between A and B might, it is stated, be quite wrong as between A and the rest of the world. As a consequence the proportions under Method 3 would have to be determined piecemeal for each separate country with which A had relations. The second objection to this method is a very practical one. Taxes are no more paid by countries than they are by things. The problem has to be faced in relation to each person, and in the case of large corporations isolation of the origin income from the total income in order to find the appropriate rate of relief is, as is pointed out, often a matter of insuperable difficulty. This is particularly the case where an attempt has to be made to reconcile two varying bases of assessment, *e. g* the three-years average and a one-year basis. But the difficulty does not end there. Taxation of the source in this country only applies to the standard rate of tax,

and the ultimate effective rate applicable may be very different, with the result that a shareholder will have a separate problem for each source of income.

To the argument that Method 3 has already been applied in the case of the British Dominions, the reply is made that the factors of Imperial allegiance and common Imperial service have made mutual concession practicable; and, even then, the results can scarcely be said to be wholly successful. This last reservation is perhaps too modest. As a matter of fact the results of the present scheme are often grotesquely inappropriate.

The conclusion come to is, therefore, that except in the case of neighbouring countries with like ideas, or in the separate commonwealths of a single Federal Government, Method 3 is scarcely more practicable than Method 4.

Consideration must, therefore, be given to Method 2, whereby the non-resident is exempted. It is suggested that over a wide area the results of applying this method would not be great so far as the respective exchequers were concerned, provided that there were " no great differences in economic allegiance as between them." It is admitted that it would be inapplicable where the relation was distinctly that of debtor and creditor.

> Thus Method 2 has three points in its favour: first, that it accords with what Governments are doing to-day so far as the money they cannot get themselves is concerned, and that it only requires an extension of a Government's solicitude beyond its own needs to those of its own industries; secondly, that it accords with the true economic interests of the investments of the country; and, thirdly, that it is the best escape from all the complications of methods of greater theoretical exactness.

It may, however, be suggested that it remains open to question whether in the long run the application of Method 2 would give a better net balance of results than if no method were adopted and economic laws were allowed full play in international relationship, each debtor country fostering its own interests in its own way. Method 2 has, moreover, most serious administrative difficulties of its own, although the Report expresses the opinion that they are not insuperable.

> The complicated case of the American corporation distributing dividends out of income only partially taxed in the United States would still have to be settled as between the corporation and the United States Treasury, in order to indicate what burden was falling upon the Dutch shareholder.

In the light of modern international finance this "complicated case" is comparatively elementary. Assuming the Dutch shareholder is interested in a great British company which holds a considerable interest in the American corporation mentioned, to say nothing of interests in scores of other companies, some of them in Holland, the Dutchman's claim to relief would be decidedly interesting, because it would raise the question as to who was to bear the cost of elucidation. It may, in fact, be hazarded that in actual practice each of the methods would offer little administrative advantage over its rivals. Method 2 is open to the objection that in so far as the national income tax is a substitute for a local rate upon ownership, there is obvious objection to relieving non-resident owners from contribution. The problem of double taxation is not merely one of rates of tax. It is also one of the purposes to which taxation is devoted.

Method 2, of course, favours the creditor countries, and, as a compromise, it is suggested in the Report that conventions might be made whereby Method 2 would be regarded as the main method, but origin should be recognised as between the Governments, *i.e.* by the creditor country making a payment to the debtor country as compensation for loss of revenue. Despite the difficulties the experts confess that they do not see any other form of practicable compromise.

Summing up the whole Report, whatever we may think of its conclusions, it may be admitted to be the most valuable examination of the issues that has yet appeared. At the same time it is open to two serious objections. It seems scarcely defensible to lay down contentions and call them principles; the Doctrine of Economic Allegiance has more affinity with the "Social Contract" than it has with the Law of Gravitation. In the past, nations, whilst having regard in a greater or less degree to the principle of faculty as between their resident nationals, have been, upon the whole, quite indifferent as regards non-residents. As has been pointed out, the tariff systems of the world are quite indifferent to the sufferings that may be inflicted by them upon the innocent inhabitants of exporting countries. They are, however, non-moral rather than immoral. So, in attempting to lay down principles applicable to double taxation, it seems to be futile to pretend that the slate of principle is otherwise than quite blank.

The second objection is much more serious. Important as may be the question of double taxation in connection with the inter-relation of Governments, it is of absolute insignificance as

compared with the subjective idea of justice as between taxpayer and taxpayer. The general relief policy must of necessity involve great loss of revenue to this country, and this loss would have to be made good by heavier taxation upon those outside its scope. It is not difficult to imagine what would be the effect upon public opinion when it was realised that this increased burden was due to the fact that important and wealthy sections of the community were escaping income tax upon the ground that their incomes were outside the ambit of the British tax. Any method of relief whereby the rate of tax upon income received in this country or accruing to residents here is affected by taxation elsewhere is, in the reviewer's opinion, unsound. For the rest the matter would seem to be one of expediency, and there is plenty of scope for international arrangements such as the one regarding shipping in the Finance Act of the current year.

W. B. Cowcher

THE PROFITS OF SPECULATORS

In his note in Vol. XXXIII. p. 428 on the Maintenance of Organised Markets, Prof. R. A. Lehfeldt argues that the profits of expert speculators on produce exchanges are obtained at the expense of what he calls the consumers' group when the crop is deficient, and at the expense of the producers' group when the crop is abundant. There always has, I think, been fairly general agreement that considerable profits accrue to the experts from these sources under the conditions assumed. Prof. Lehfeldt's reasoning ought to convince those who have any doubts remaining on this point.

But this is only one aspect of the question of the source of the speculators' profits; for these experts have to make a living even when crops are normal and abrupt changes in demand absent—a case not provided for in Prof. Lehfeldt's discussion. Now it is precisely when markets are free from abnormal disturbances arising out of excessive scarcity or abundance of the commodity handled that the amateur speculator is useful and his existence essential for the continued prosperity of the expert. There is adequate evidence from a long series of Government inquiries in both Canada and the United States to establish the fact that the bulling and bearing of experts during crop years of normal yield are not harassing or costly to producers or consumers, but are undertaken mainly with the object of enticing

outside "punters" to speculate and thus provide the profits that are not forthcoming in adequate supply from other sources at such times.

Again, it is during the crop years of abnormal yield, when speculation is extremely active, that failures are most frequent among members of exchanges, owing to the more expert operators swallowing up their less expert brethren. It is difficult, therefore, to maintain that the sole source of profit is producer or consumer even under the conditions assumed by Prof. Lehfeldt.

Some idea of the extent to which outsiders gamble on the grain exchanges of the United States may be gathered from the very exhaustive *Report of the Federal Trade Commission on the Grain Trade* now in course of publication in seven important volumes. From the investigations of the Commission it appears that much difficulty is experienced by elevator companies in preventing their country managers from speculating on their own account and using the elevators' resources for that purpose; and the private wire-houses, the medium of communication between the grain exchanges and the country districts, often solicit business from outsiders by open advertisement. Indeed, it seems to be the case that many of these houses could not maintain branches in country towns and make profits out of hedging business and the business of large operators interested in the grain trade unless they sought for, and obtained, outside speculative business as well. If there were any doubt that gambling by outsiders on produce exchanges in the United States is not profitable to the expert members of those organisations it would be removed by a study of the nature of the opposition offered to the recent legislation imposing prohibitive taxation on grain futures which do not have their origin in the ordinary routine of crop-moving business.

It is more difficult for the outsider to obtain access to the organised produce exchanges in this country, but speculation by such people here is not unknown. The international character of these markets, however, enables the experts in all countries to share the profits of their business, whatever their origin may be; and the English speculators undoubtedly benefit at the expense of the foolish gamblers in America.

If American legislation succeeds in killing speculation on the produce exchanges by outsiders the sources from which the experts derive their profits will be fewer. This must necessarily result in a diminution in the number of the experts; and if, in addition, the movement towards co-operative marketing

continues to extend a comparatively small number of organisations or individuals will, in a short time, control the distribution of the great bulk of the cotton and wheat crops. The effect of this on stability of price will probably be serious; for errors of judgment on the part of a few members of a small group are less likely to be penalised with promptitude than if there were a large number of rivals ready to profit by their mistakes. There is an impression in America that the increasing suppression of the outside "punter" and the necessity of reporting to the Government all transactions in wheat in Chicago of 500,000 bushels or over are tending to lower the price obtained by the producer for his crop. There are, of course, other and more fundamental reasons for the present comparatively low prices of agricultural products throughout the world; but it is certainly the case that the new regulations in America have prevented some large dealers from giving their powerful support to the wheat market. The prevailing circumstances in that market are such that this withdrawal of support is more injurious to the producer than to the consumer; and it is difficult to resist the conclusion that, at the moment it is the producer who has to provide the extra remuneration for the expert speculator that is required to compensate the latter for what he no longer obtains from outsiders.

J. G. SMITH

OBITUARY [1]

Vilfredo Pareto

To my mind it is sheer loss of time to guess at what the history of science will consider as fundamental contributions to its progress by eminent men of science, when we have lost them, and consequently I will not speak in the name of future history in the case of Pareto, who died at Céligny (Canton de Genève) on the 19th of August.

The history of science is not a piece of machinery whose construction and principles of action we know. History is written by men, and accordingly I think the criteria governing the history of science are disputable.

Every change in criteria, of course, modifies judgment. Take a case like Gossen. If the man had never existed, we would be in economics just as far as we are. Objective progress of science owes him nothing, considering that nobody heeded what he wrote. On the other hand, if history were to try to form an orderly series of fundamental ideas, crediting every thinker, in chronological order, for what is his own, another kind of inextricable difficulty would arise, in that ideas are connected with each other much as prices are. Ideas form a system. They are all extremely complex functions of each other. A very small variation in one idea—to whatever branch of science it is considered to belong—will, or can, modify many an idea in the whole firmament of ideas.

This correlation of concepts is growing worse and worse as we all get to know of each other quicker, and more completely, than in former times. But it is particularly intense at certain epochs, when fermentation of brains is going on in an unusual measure. Now, this has been the case in Pareto's lifetime. The rate at which physical, biological, historical and economic science have been progressing in the last seventy years has precedents only in the times of the *rinascimento*, and, if Einstein is right, we will have to consider even mathematics as occasionally subject to progress by jostling. Pareto, as I will show a little

[1] Note by Editors.—This article is not a translation, but was written by Professor Pantaleoni direct into English.

later on, had a mind open to nearly every science, and consequently ideas were banging into him from innumerable quarters and were launched back by him in many directions, after due deflection, or qualitative modification. As to economics and sociology, he has happened to live in a period in which fermentation can be said, I submit, without exaggeration, to have been decidedly no less than in the physical or the biological sciences. I am sorry to have to mention, among others, the names of men, some of whom are (fortunately) still living, if I am to prove my case, and thereby to expose myself to the risk of hurting perhaps the modesty of some of them, and perhaps, occasionally, the vanity of others.

Classical political economy had been elaborated into a system which, *prima facie*, seemed as clear in its fundamental ideas, in their reciprocal connection, and in the division into arguments of the whole field covered by economics, as, say, Euclid's plane geometry. The system was so beautiful that it was reposeful to the mind, in the way in which orderly and sure knowledge generally is. Its success was such that, if minor controversies are kept out of sight as irrelevant to the system and because they were fought out on the basis of the system and of the propositions constituting it, classical political economy, like Euclid, had spread, practically, all over the world. Nor was it, I think, injured by the meteor of the so-called German historical school and its "principle of relativity." This was soon found out not to be anything new, or neglected, or overlooked, ever since the times of Adam Smith, and the doctrine appeared, in the way it was now presented by the Germans and their followers, to be either wrong and senseless, or else, if this judgment is to be mitigated, to have had and still to have its own appropriate field, which has never been disputed, if only pains are taken to understand the difference between "scientific theorems" and "precepts of practical political economy," and the difference between "abstract or hypothetical economics" and "concrete economic problems."

What really changed profoundly old classical economics in its systematisation and the intention and extension of its propositions, so much so that the latter are now generally considered as claiming to be only first approximations, superseded by closer ones, and often even quite thrown out of gear, have been three or more novel ideas: viz., the concept of marginal utility; the concept of prices as functions; and particularly the treatment of abstract economics as a problem of statics and dynamics, or of mechanical "equilibrium" in a large sense. Now such concepts

and a few more, cousins to the former, such as, say, the construction of tables of correlated prices—correlation which, if only properly pursued, expands into a "general correlation of all prices one with another," though in many different ways and constituting different functions—tumbled into classical economics from very different quarters, pellmell and piecemeal, thus wrecking and making havoc here and there, in a disorderly way, like bombshells. It required, therefore, some time before a new systematic view of economics could get elaborated, which is now, I submit, spreading over the world, not, however, without strife, as broadly as classical economics had done before.

Pareto, who first collaborated at shelling the classics and then elaborated a system of general economic equilibrium, with materials only partially his own, would not, I suppose, have been even led into the fields he walked over, if Cournot and Jevons and Walras had not been, and, granting these influences, he would not have been what he has been without the author of *Mathematical Psychics* and the author of *Mathematical Investigations in the Theory of Value and Prices.* But this admission does not suffice to explain his position, if he had not once been under the spell of Ferrara in economics, and of A. Comte in philosophy, and had not had the very preparation in university life, professional work and social life which it was his lot to have. His first publication, when in 1869 he took his degree as engineer in the Polytechnicum of Turin, is a memoir of fifty-three pages on "the fundamental principles of the theory of elasticity in solid bodies, and researches concerning the integration of the differential equations determining their equilibrium." Obviously he only needed to peruse once properly Walras, after having had a much larger experience of industrial and commercial life than Walras ever had had, to get immediately ahead of Walras. If he had not had this mathematical preparation he would, I expect, like others who were lacking it, have groped about evolving ideas of "harmony," which is a concept belonging to the family to which the concept of equilibrium belongs, and which was, I think, Walras' first move; or he would have gone in for biological interaction of forces, say, like Schäffle—again a concept pertaining to the family of equilibria; or he would have kept within the limits of classical political economy, which had realised the equality of quantities demanded and supplied at certain prices, and the forces in operation leading to these equalities, and consequently had a partial knowledge of equilibria. He would have added to science in conformity with his great talent and intellectual capacities, but

he would not, I suppose, have aimed at realising in economics a quite general theory of economic equilibrium, or struck in his Sociology at characterising the fundamental forces which determine static equilibria or dynamic phenomena in the forms that human society assumes. Quality of the forces, magnitude, direction, velocity, these are permanently his points of view, leading particularly in the analysis of the genera of forces, or their quality, to results which reach further than a first approximation. In economics his work, I submit, consisted in bringing to a great perfection a machine which was to a very large extent already built up; in Sociology his way of formulating and grappling with the problem had no forerunners, at least to my knowledge, and certainly to his, but it had helpmates, say, in writings like those of Gustave Le Bon in *Psychologie du socialisme*, and *Psychologie de l'évolution des peuples*, or in Gaetano Mosca's *Principii di Scienza politica*, or Paulhan's *Esprits logiques et esprits faux*, and probably in a score more of great historians with whom he was very conversant.

When I saw him take to Sociology, a field I considered to be as dangerous as quicksands, I strongly objected and told him it would kill him as an economist and lead to nothing, exactly as it had killed C. Menger, who never got further than his first volume of *Grundsätze*, as a result of having run after Sociology; and I expressed to him the hope that Marshall would never get into the same frame of mind, and therefore be unable to give us his second volume of *Principles*. I am glad I was a bad prophet and that Pareto, when he had a purpose, should be, by temperament, irremovably obstinate. He not only finished his Sociology in 1916, but, as an economist, brought out also his *Manuel d'Économie politique* in 1909, when he was already head over heels in Sociology. If he had followed my advice, we would not possess his *chef-d'œuvre*, or what he considered as such. Of course my opinion concerning his work as an economist and as a sociologue is of no particular value, and I am only led to deliver it because I am asked to do so, and because I cannot well avoid adverting to the subject in writing upon Pareto. I think Pareto's generalisations of economic equilibrium to have reached a limit beyond which I do not see much benefit for science to go: it is a chapter of science relatively, or for some time, closed. I would like to write "finis" in this direction, and I do request my students to interest themselves now only, as I do myself, in the research of the nature of the functions which we are handling. Anatomy is, so to say, closed. Let us go in for histology or microscopic analysis of the

tissues, and the nexuses which bind them together; let us pay attention to the points of application of forces. Particularly the systems which constitute connected prices and the exact nature of these functions is not only an immense field of research, but now a necessary one to go over very carefully. The elasticity of curves of supply and demand modify the correlation of prices, so much so, that the systems of connected prices are again functions of the elasticity of the curves.

However that may be, I consider Pareto to have closed, in economics, a direction of research. In this line I consider him as the last of the Mohicans. On the other hand, if Sociology is the topic, I regard Pareto as having furnished us with a first approximation which needs following up. In one field he is omega; in the other alpha. In both fields, however, there are scores of niceties of which only a few would suffice for a very honourable reputation as an economist. His economic work is pretty well known to English readers, having been, incidentally at least, often quoted and discussed. His sociological doctrine, I suspect, is less known. Like his economic writings, the Sociology has only been translated into French; the obstacle to a larger acquaintance in England and the United States does not lie in this circumstance, considering that it was no obstacle to his economics. Where it lies I cannot tell.

That he has struck a well of some fecundity I argue from the fact that, independently of him, other scientists are boring holes in the same field. Taussig in his *Inventors and Money-makers* takes instincts as motive powers of economic phenomena. Well, Pareto is in that line in his Sociology. A minute analysis of the reasons given by men for their actions leads Pareto to discover in them a pseudological dressing-up, in terms of logical arguments, of feelings, sentiments and instincts; he classifies these in genera and species, discovers their joint combinations, and their action amidst physical conditions and truly logical actions, leading up to a social equilibrium infinitely more complex than an economic equilibrium.

His Sociology is therefore on a quite different plan from that of other Sociologies. He tries to find the fundamental forces, the "residues," of social phenomena or of men's actions, and to explain the way these forces work in bringing about what we see. He does not give a history of social institutions from the remotest origin which is accessible to us up to our days, as other sociologues have done. There is place both for the one and for the other kind of work, but Pareto's kind also merits being followed up.

A certain amount of the details of his life may also help to put him in the proper historical *milieu* and, at any rate, be of some interest for people who care for biographical notices. He himself had no interest in similar things. He did not even care to know what great men looked like, and I occasionally amused myself by telling him how important personal circumstances had been, or showing him a photograph of Herbert Spencer, whom I knew that he esteemed very highly, or a photograph of Newton's monument, knowing that he thought Newton was the greatest man who had ever lived. He would then look down upon me with a great sense of pity. I am therefore aware that in going into biography I am doing a thing which was most hateful to him.

His family belongs to the best Genoese aristocracy. As everybody knows, Genoese nobility consisted of a commercial select class whose most influential families had their peerage in the *libro d'oro* (golden book) and governed the Republic till Bonaparte conquered it and annexed it to France. To conciliate Genoese public opinion Napoleon called some of the most eminent Genoese into French service. Everybody knows the baron Louis Corvetto, who was made a member of the Conseil d'État, as he made himself famous by re-establishing the French finances as Minister of Louis XVIII after Napoleon's fall. Before even calling Corvetto into French service Bonaparte made a Pareto *pair de France*. When Genoa became a possession of the House of Savoy and King Charles Albert of Piedmont gave his States, in 1848, the constitutional charter which is still the fundamental law of Italy, a Pareto was a member of the first constitutional ministry and took in charge foreign affairs.

I dare say Italians would have continued to have members of the Pareto family in very high political offices—something like the series of the Cecils in England—if Pareto's father, as a young man of twenty-four, had not sided with Mazzini, and got himself into trouble, so that he emigrated to France. His brother, however, was Italian ambassador in Constantinople, and Pareto's fortune, in later life, was due to his being the heir of this uncle. Pareto's own father, Raphael, had no fortune when he emigrated, so that he competed in France immediately for a place of civil engineer. I happen to have the report of the examiners where he is qualified as "sujet des plus distingués par son instruction et d'une capacité remarquable." He married in France Mlle Marie Mettenier, who gave him on the 15th of July, 1848, in Paris—rue Guy, La Brosse, No. 10—Vilfredo Pareto. Raphael Pareto was soon afterwards recalled to Italy by Quintino Sella because

of his proficiency in hydraulics. So Vilfredo Pareto, when of age, studied mathematics and engineering at the University and at the Polytechnical School of Turin, where he was a friend and fellow-student of Galileo Ferraris, who later gained for himself a great reputation for his discoveries in electro-technique. Although Pareto in the final examinations came out first and Ferraris second, he refused to give himself up to science as a *Privatdozent*, as Ferraris did, because of lack of means. So he accepted a post as railway engineer in the company exploiting the Roman *réseau*. This brought him into contact with the Banca Generale, which offered him the managership of the iron-works which the Bank controlled in Val d'Arno. This nomination was decisive for his interest in economic problems. Although he still found time to discuss hyper-elliptical functions of Abel in a paper published in Kronecker's *Archiv*, his profession obliged him to fix his attention on coefficients of production, on labour problems, on freight, custom duties, on monetary problems, and also on political problems. Residing in Florence, then the capital, he was a habitué of the Peruzzi family, whose house was the centre of the then governing Conservative party (the *destra*, as it was called). It was at this time that the management of the railways passed from private companies to the State, that the Conservative party was thrown out of power, that the tariff was reformed in a strongly Protectionist sense, and even Professors in the Universities, influenced by German *Katheder-sozialismus*, were going in for extension of State functions. Ferrara founded in Florence, in opposition to this movement, the Adam Smith Society of which Pareto was an active member with De Johannis, Martello and of course Ferrara himself. Pareto gave the Adam Smith Society all his experience as a business man who had many scores of times visited Great Britain, particularly Scotland. Of this activity his articles in the Bulletin of the *Accademia dei georgofili*, in the weekly paper of the Adam Smith Society, the *Economista di Firenze*, and in the *Journal des Économistes* are a proof. The *Giornale degli Economisti* which had been founded and belonged to men who had sided with the State socialists, and was the *palaestra* of Cossa, Luzzatti, Lampertico, Loria, Carlo Ferraris, was bought up by some friends of liberalism and free trade who called upon Pareto to take charge of the monthly political *chronique*.

It may seem to some as if Pareto had turned to economics only late in life. The truth is, he had over twenty years of business experience and had tackled all kinds of concrete

economic problems before taking to abstract economic science, and found himself, therefore, in a position analogous to that of Ricardo when he came across Adam Smith's *Wealth* after thirteen years of practical work on the Stock Exchange, and discovered Smith had been saying what he had been doing and seen others do. A large portion of Pareto's Sociology was an object of experience in the political life of those days, before being systematised, and a relevant portion of the economic contents of the *Cours* was collected by him as a business man. Pareto, being a man capable of any amount of work, acquired in Florence also his knowledge of Greek and of history. In Florence was then residing Comparetti, the famous philologue and hellenist, who, curiously enough, had originally studied natural sciences and taken his doctor's degree in chemistry—a case which shows that sciences are things apart only in books and not in good brains. Besides D. Comparetti, A. Franchetti was also staying then in Florence and working at a translation of Aristophanes. It was impossible to take a walk with Franchetti without having to contribute to the most proper signification and translation of a word or verse of Aristophanes. And Pareto as well as Comparetti had to go in for it. Pareto turned out to be so proficient in Greek that he not only could translate straight off any text, but also write fluently in Greek. A large portion of his library, of which he has made a present to the University of Lausanne, consists of Greek literature and of books concerning ancient Greek history and civilisation. His memory was such that he never forgot a thing he had once learnt! In philosophy Auguste Comte was still reigning, and Pareto shows many traces of his influence. It is well known that the negative contents of Comte's philosophy consisted in a refusal to consider any kind of original or final causes. Our knowledge has to be limited to what is " between the origin and the end of things." He hated metaphysics and transcendentalism. So did Pareto. In the positive portion of his *Philosophie positive* Comte draws up a theory of the evolution of mental states of which the third is characterised by limiting our researches to the " nexus between phenomena " by means of " experimentation and observation," and refusing to look after abstract causes of phenomena. Well, here again Pareto was under the spell of Comte. Of course Pareto—and it was easy for him—kept aloof from the defects or aberrations of the *Politique positive.*

Pareto's influence on Italian economists has been enormous. His *Systêmes socialistes,* his *Cours d'Économie politique,* his *Manuale.*

are in every student's hands. His *Sociologia* is too cumbrous—and also too expensive—to be equally diffused, although the first edition is exhausted; a good epitome by G. Farina is in circulation among students. Pareto had the good luck of having some very eminent scholars, such as E. Barone, L. Amoroso and G. Borgatta. But he had also the bad luck of creating *Epigoni* who only repeat his words, oppose every criticism, would stop the progress of science where he stopped, strain his theories and use him as a springing-board for themselves. Every great man has had to labour under the inconveniences created by *Epigoni.* These tend to the formation of "schools," more properly called obnoxious syndicates of fools.

M. PANTALEONI

CURRENT TOPICS

THE *Institut International de Statistique* met, for the first time since 1913, at Brussels on September 30. At the opening session M. Delatour was elected president in succession to the late Luigi Bodio. The business of the session differed from that of previous meetings in that most of the time was devoted to elaborating resolutions and definitions on subjects referred to it by the League of Nations; but the main function of the Institute, which is to endeavour to secure uniformity among the nations in the presentation of statistics, was well performed by this task. Useful work was done in the demographic section under the chairmanship of Sir Athelstan Baines, but the more lively discussions were in the economic section, which considered index-numbers, international trade, agricultural production and fisheries. For index-numbers it was in the end agreed that changes in the relative importance of goods ought to be taken into account, both for wholesale and retail measurements, and that for this purpose more adequate statistics of production and consumption were needed. In connection both with foreign trade and with fisheries the extreme difficulty of differentiating between national and foreign products exercised the members' greatest ingenuity. If fish caught by a German trawler in the deep sea are landed in England and then sold to the south of Ireland, to what country should they be counted as national production, and should they appear in trade returns, as the special trade of Germany or of the United Kingdom? Rules were laid down which, though necessary in view of the difficulty of ascertaining the place of origin of goods when they have once

passed through the customs' barrier of a country, would have the effect of exaggerating the value of the exports of a country, by the inclusion not only of the value of any imported materials they contain, but also a quantity of goods which have been nationalised only nominally by resting in the country.

The notice, in our last number (see esp. p. 294), of Ricardo's Ingot Plan has led to the discovery in the Coins and Medals Department of the British Museum, not indeed of the ingot itself but of an impression in bronze from the die which was used to stamp it. An undated ticket lay under it, on which were written in a contemporary hand the words:

Stamp
for striking gold
ingots according
to the suggestion of
Mr. Ricardo.

It would have been more correct to say impression of a stamp.

The diameter of the object is 34 mm.; that of the actual die as shown by the edge of the circular impression is 32 mm. The impression is of a G.R. crowned, as in the engraving above, for which we are indebted to Mr. G. F. Hill, Keeper of Coins and Medals. The above engraving is of the actual size.

In the same way it has been discovered by the Bank of England that in the early months of 1820 the Mint delivered to the Bank 2028 gold bars of 60 ounces each. Of these 13 were sold, to 12 different purchasers, viz.:

(*a*) 3 in February 1820 at £4 1*s*. per standard oz.
(*b*) 3 in October 1820 at £3 19*s*. 6*d*.
(*c*) 7 in May 1821 at £3 17*s*. 10½*d*.

The remaining 2015 were returned to the Mint.

Gratitude is due to both authorities for their interesting communications.

"THE citizens of the Enterprise district of Alabama have erected a bronze fountain in the heart of their chief town with the inscription:

In profound appreciation of the Boll Weevil and
what it has done as the Herald of Prosperity,
This Monument is erected.

Its ravages turned them to mixed farming from an exclusive dependence on cotton." *National City Bank's Monthly Circular* (September 1923).

The monument in Salt Lake City to the Sea-gull was in appreciation of his destroying the destroyer, the locust. But here it is the destroyer himself that is thanked, for his lesson in economy. The editor of the Circular recommends it to the one-crop wheat-growers of the prairie provinces.

THE issues of the ECONOMIC JOURNAL for September 1914, December 1915, March 1917, March and June 1918, March, June, and September 1919, and March 1920, are now out of print. As a few additional copies are required for the purpose of completing sets, the Secretary of the Royal Economic Society would be much obliged if any Fellows who can spare their copies of these issues would return them to the Assistant Secretary, Mr. S. J. Buttress, 6, Humberstone Road, Cambridge. A payment of 5*s.* will be made for each copy so returned.

The Society has for disposal one complete set of the ECONOMIC JOURNAL (1891–1923), bound in cloth. Price on application to the Assistant Secretary as above.

RECENT PERIODICALS AND NEW BOOKS

Journal of the Royal Statistical Society.

JULY, 1923. *On Some Recent Contributions to the Study of Industrial Fatigue.* D. R. WILSON, Secretary to the Industrial Fatigue Board. Methods of inference are illustrated by observations evidencing connection between efficiency and shorter hours, or atmosphere less hot or humid. In the discussion of the paper Miss Collet distinguished between optimum output and optimum health; Messrs. Yule and Isserlis made important remarks on method. *Death-rates, Density, Population and Housing.* PROF. A. L. BOWLEY. An examination of the correlation between death-rates and local aggregation as measured by (1) Persons per room; (2) "Crowding" as defined by the presence of more persons than one per room; (3) "Overcrowding" as officially defined. Housing conditions seem to be more closely related to death-rates than density as commonly defined. *Misstatement of Age in the Returns of the Census of Scotland.* J. C. DUNLOP, Registrar-General for Scotland. A change in the question put by the Census has resulted in a diminution (but not the extinction) of error. *Mr. Correa Walsh on the Calculation of Index-numbers.* PROF. F. Y. EDGEWORTH. A sequel to an article published in the September number of the ECONOMIC JOURNAL.

The Edinburgh Review.

OCTOBER, 1923. *Syndicalism in Italy.* DR. JAMES MURPHY. The older organisations having been discredited by the feebleness of their resistance to the Fascists and by the proved inability of the proletariat to conduct the business of a factory, there has arisen a new kind of Syndicalism taking in the middle classes and substituting for the Socialist Utopia a national ideal which is full of promise.

The Contemporary Review.

OCTOBER, 1923. *Preference and the Imperial Economic Conference.* EARL BEAUCHAMP. "You cannot give a preference to the Colonies unless you put a tax on food. . . . This is the elementary fact on which all the arguments of the Empire Development Union are likely to break in vain."

The Round Table.

No. 52. *The Imperial Conference.* Disputing that each part of the Commonwealth should determine its fiscal policy irrespective of the rest, the writer suggests that Great Britain might secure a protected market for her products by giving the Dominions a protected market for their food products. The Dominions would gain by the influx of population.

The Nineteenth Century.

OCTOBER, 1923. *The Land Problem: its only Real Solution.* MAJOR E. HAMMOND FOOT. "The idea that we English are unsuited by nature to grow our own food is the greatest fallacy. . . . Is there any reason why a Land Ministry should not be formed on the lines of our self-governing Colonies for the purpose of settling suitable families on the land?"

International Labour Review (Geneva).

AUGUST, 1923. *The Regulation of Agricultural Labour Conditions in Continental Europe.* H. M. CONACHER. Three systems are described: in the north a labourer permanently working on the farm of an employer; in the south and east a landless proletariat casually employed on large properties; in the middle a peasant proprietor sometimes working a part of his time for hire. *The Economic Effects of the British Trade Boards System.* DOROTHY M. SELLS. The sixty-three trade-boards set up in Great Britain and Ireland, covering three million workers, have not fixed unduly high rates and have had a good influence on hours, organisation and management.

SEPTEMBER. *Employers' Organisations in the Northern Countries.* H. C. OERSTED. A survey of several Scandinavian federations. *Intellectual Workers and the Labour Market.* Equilibrium between demand and supply, less stable in intellectual than other occupations, would be promoted by an international inquiry into the subject.

OCTOBER. *The Servian Ministry of Social Policy.* A description of difficulties overcome. *Co-operation in Finland.* VALDE HYVÖNEU. A leading feature is the contrast between consumers' societies in towns and those in country districts.

The Quarterly Journal of Economics (Cambridge, Mass.).

AUGUST, 1923. *The Rural Economy of Japan.* DANIEL E. BUCHANAN. A vivid picture of the simple and laborious life led by two-thirds of the Japanese population. The income of an agricultural household may be two or three hundred yen, varying with the fluctuation of the principal crops, rice and silk. The average holding is three acres, a size not favourable for the application of modern methods. A majority of the cultivators are tenants. Relations with landlords are becoming strained. *The Ethics of Competition.* FRANK H. KNIGHT. The competitive system does not well fulfil even its own standard, the satisfaction of wants. It is a sort of "game," emulation being a more powerful motive, "in spite of old economics, than mere appetite and cupidity"—and not a very fair or good game. It contrasts unfavourably with the pagan ideal of perfection, the Christian ideal of spirituality. *A Theory of Business Cycles.* L. K. FRANK. *Wages Regulation and Children's Maintenance in Australia.* P. H. DOUGLAS. A description of Wage Boards and Arbitration Courts; with special reference to projects for "child-endowment." The principle is widely accepted, but it is disputed whether the allowance should be paid from Government funds or through the employers.

The American Economic Review (Cambridge, Mass.).

SEPTEMBER, 1923. *State Bank Withdrawals from the Federal Reserve System.* CHARLES S. TIPPETTS. Reasons for the withdrawals—68 up to last June—of State Banks from the Federal Reserve System are considered. *The Minimum Wage and Efficiency.* E. A. FILENE. The minimum wage is advocated as a boon to the employer (as well as the employee). *Fisher's "Making of Index-numbers."* C. SNYDER. *Tendencies in the Automobile Industry.* C. C. EDMONDS. Tendencies to integration, combination and monopoly are examined; with special reference to some representative companies. *The Agricultural Credits Act of 1923.* V. N. VALGREN. *Rate of Wages and the Use of Machinery.* H. GORDON HAYES. The doctrine of the text-books, that an increase in the general rate of wages will make it profitable for entrepreneurs to install machinery, is disputed on the ground that the use of machinery involves the substitution of one class of labour for another.

Journal of Political Economy (Chicago).

AUGUST, 1923. *Sixteenth-century Religious Thought,* I. R. H. TAWNEY. A well-documented and sympathetic description of the attempts made by the Mediæval Church to regulate economic life, it not yet being admitted that there can be one rule for private life and another for business. *Taxation and Changes in Price Levels.* JACOB VINER. It is shown that the absence of provisions for adjusting taxes to changing conditions resulting from changing price levels is a source of serious inequities. *The Home Responsibilities of Women Workers and the Equal Wage.* Evidence is cited from American sources to show that women carry responsibilities beyond their own support, and their contribution to the "composite income" of families is material. Three English investigations give different results; agreeing, however, to the fact that the woman worker's burden increases with her age. *The Future of our Creditor Position.* C. E. GRIFFIN.

OCTOBER. *Value and the Larger Economics,* I. F. A. FETTER. Prof. W. H. Hamilton's remarks "on the place of Value Theory in Economics" (*Journal,* 1918, p. 217 *et seq.*) are criticised. The "marginalists" are defended; their subjective theory has obtained a signal victory over Marxism. *Overhead Costs in Modern Industry,* III. A full enumeration of the economies attending production on a large scale. The disadvantages are mostly of the kind which handicap Government operation: "complexity of organisation, impersonal relations, and the undermining spontaneous interest in the success of the business." *Sixteenth-century Religious Thought,* II. R. H. TAWNEY. That the mediæval claim of religion to regulate business survived the Reformation is shown by interesting extracts from Luther and less well-known leaders. *Valuation and Rate Regulation.* W. M. W. SPLAUN. A survey of the work of the Railroad Commission of Texas. *The German Works Council.* EMIL FRANKEL. The pre-war growth of the "Council Idea," the provision of the Councils Law of 1920, and the working of the law are lucidly set forth.

The Annals of the American Academy of Political and Social Science (Philadelphia).

SEPTEMBER, 1923. *Prohibition and its Enforcement* is the subject discussed in some thirty contributions to this number. The various statements and proposals presented defy summary.

Journal des Économistes (Paris).

OCTOBER, 1923. *La suppression du monopole des assurances sur la vie en Italie.* G. DELAMOTTE. *Allocations familiales.* G. DE NOUVION. An account of "family endowments" in France. Last year there were distributed 92 million francs for this purpose among 800,000 wage-earners (some 35 cents per day per head).

Revue d'Économie Politique (Paris).

JULY–AUGUST, 1923. *La valeur mathématico-économique de la loi de King.* J. DELEVSKY. A hypothetical explanation of King's law (of demand for wheat) leads to the conclusion that it is the only formula of the kind based on the action of certain economic and psychological forces. *L'introduction du franc en Alsace et en Lorraine.* W. WITTICH. The introduction of the franc was a necessity. But the manner in which this monetary reform was accomplished cannot be defended. *Les théories du professeur Cassel sur la monnaie et le change.* G. LACHAPELLE.

Jahrbücher für Nationalökonomie und Statistik (Jena).

JULY, 1923. *Die Anpassung der Sozial-versicherung an die Geldentwertung und Lohnsteigerung.* E. GÜNTHER.

AUGUST. *Die fiskalische Inflationsbilanz.* F. TERHALLE. *Grundlagen der Reis- und Lohnbildung.* RIEDENAUER. A moderately mathematical theory of price and remuneration.

OCTOBER. *Grundfragen und Wege der qualitativen und quantitativen Wohnungspolitik.* H. BECHTEL.

Weltwirtschaftliches Archiv (Jena).

OCTOBER, 1923. *Theorie des weltwirtschaftlichen Reichtumsausgleichs.* PROF. R. LIEFMANN. Marginal equalities between economic quantities are discussed. *Zur Soziologie des demokratischen Staates.* PROF. F. TÖNNIES. *Die richtige Form der Index-ziffer.* DR. P. HERMBERG. Referring to Flux's article in the *Journal of the Statistical Society*, 1921, and to Irving Fisher's *Making of Index numbers.*

Archiv für Sozialwissenshaft und Sozialpolitik (Tübingen).

VOL. LI., NO. 1. *Cassels System der Theoretischen Nationalökonomie.* ALFRED AMONN. The first part of a lengthy criticism. *Grenzen und Gefahren der Goldmarkrechnung.* KARL LANDAUER. *Der Begriff der Nation und die Idee einer Völkergemeinschaft.* NICOLAI VON BUBNOFF. A philosophical analysis shows that there is no inconsistency between the conception of a nation and that of a community of nations. But to speak of goodwill (*Willensgemeinschaft*) among nations at present would be fantastical (*Schwärmerei*). *Schicksal und Bedeutung der Industrie in der russischen Revolution,* 1917–1922. HANS VON ECKARDT. The

fiasco of the attempt to "nationalise" Russian industry is exhibited; an essential cause being the break between the economic life of the town and country. The *régime* which followed, described as *Staatskapitalismus*, cannot last.

Zeitschrift fur Volkswirtschaft und Sozialpolitik (Vienna).

1923. *Die wirtschaftslehre von Josef v. Sonnenfels.* LOUISE SOMMER. *Quesnay und die Gesellschafts-ordnung in Frankreich vor der Revolution.* DR. STEPHAN RADITZ. *Die Staatsidee in Plato's Kunstlehre.* DR. W. ANDREAE.

Giornale degli Economisti (Rome).

AUGUST, 1923. *Una proposta di Riforma del Diritto successorio.* G. DE F. GERBINO. Referring to Professor Rignano's plan for the taxation of inheritances and to some criticisms of the plan. *Alcuni punti . . . della Teoria della "rendita."* G. SENSINI. Referring to the writer's own book on "Rendita."

SEPTEMBER. *Sulla posizione dell' oro nella circulazione odierna.* R. MICHELS. Statistics of production, purchasing power, and foreign exchanges discourage the hope of establishing fixed ratios between gold and the various European currencies.

OCTOBER. *I porti di Ancona e Venezia.* EPICARMO CORBINO. *Le scienze economiche e statistiche al Congresso di Catania.* G. MAGORANA.

La Riforma Sociale (Turin).

JULY–AUGUST, 1923. *Di alcune Critiche mosse all' impiego dell' oro come base della circolazione. . . .* ROBERTO MICHELS. The views of Knapp and others on a substitute for gold as the monetary standard are examined. *Le banche popolari cooperative e la riforma di codice di commercio.* A. LANDINI. *Le "industrie chiavi."* A. GARINO-CANINA.

SEPTEMBER–OCTOBER. *Vilfredo Pareto.* GINO BORGATTA. An appreciative *éloge*. *Conversando con Vilfredo Pareto.* C. E. FERRI, G. ROCCA. The record of a visit to Pareto in his retreat near Céligny (on the Lake of Geneva), and of his interesting conversation. *Una nuova politica delle Assicurazioni sociali.* F. TUSOLERA.

Scientia (Milan).

VOL. XXXIV., No. CXXXVI., 8. *Pathologie Économique: Une interprétation de la politique économique des temps de guerre et de l'après-guerre,* I. C. GINI. This first part deals with monetary inflation.

VOL. XXXIV., No. CXXXVIII., 10. *America and the League of Nations.* A. HOPKINSON. Article X. of the Covenant, pledging the League to preserve the territory and independence of all its members, together with Article XVI., contemplating the employment of military naval or air force, explain the aloofness of the United States. In the case of a dispute, for instance, between Greece and the Serb-Slovene State, America could not be expected to send an armed force at the bidding of the League. Co-operation in economic boycott might be more practicable.

VOL. XXXIV., No. CXXXIX., 11. *D'une Société économique des Nations.* H. HAUSER. While economic autarchy rather than

free trade is the ideal, there is no hope of peace. The best that small nations can do at present is to unite in economic *ententes*.

Metron (Ferrara).

VOL. III., No. 1. *La prédominance des Naissances masculines.* H. W. METHORST. An elaborate classification of more than 1,333,000 births in Holland in 1906–1913 seems to prove that the preponderance of masculine births is not affected by difference in the age of the parents. When both parents are over thirty-five years the excess of boys is less. When either parent it between twenty and twenty-four years old the preponderance is considerable; it is immense—109 boys to 100 girls—when both parents are in that period of youth.

No. 6. *The Partial Correlation Coefficient.* W. RISPHAM. Experiments involving some half a million trials verify the theory of correlation and justify freedom in its application. *Biometric and Experimental Methods.* R. PEARL. The logic of statistics is illustrated by analogies between the life-table for the fly *Drosophila* and the United States life-table, one year of human life corresponding to 1·279 days of *Drosophila* life. There are also articles by GULDBERG and TCHUPROW sounding the depths of mathematical statistics.

No. 7. *On the Mathematical Theory of Population Growth.* R. PEARL and L. J. REED. An investigation of a formula proper to express the growth of population. A form can be found which by the laborious adjustment of some half-dozen constants will represent a long history of growth, including several cycles.

Revista Nacional de Economia (Madrid).

VOL. XV., No. 44. Among the "doctrinal articles" is an interesting contribution by C. V. MEY to the economic history of Spanish colonisation. The "pre-Columbine" agriculture was very meagre, and the Spanish introduced many new instruments and vegetables.

No. 45. *Historia economica de la colonizacion española.* C. V. MEY. This sequel deals with the industry and mines of Spanish America. There were excellent laws—not always obeyed—for the protection of the Indian miner. *El. balance comercial interpretado a la luz del álgebra.* PROF. BRANKEN. The principles of accounting exhibited algebraically.

Skandinaviska Kreditaktiebolaget (Stockholm).

OCTOBER, 1923. This quarterly Report contains an important article on Discount Policy and the Gold Standard, by Prof. G. CASSEL. Distinguishing between stability of general prices and their parity with gold, he does not advocate the latter object unreservedly; he remarks on the discount rates in England and America, and hopes for understanding between those who, in the different countries, are entrusted with the management of the currency.

NEW BOOKS

English.

CANNAN (EDWIN). Money: its Connexion with Rising and Falling Prices. Fourth Edition, revised. London: King. 1923. Pp. 106.

[In this edition for the first of the two sections added in 1820 there is substituted "Part II. Further Elucidations," incorporating part of the article published in the ECONOMIC JOURNAL, 1921. The second section has been rewritten, to form "Part III. The Recent Historical Example."]

CASSEL (PROF. GUSTAV). Theory of Social Economy. Vols. I. and II. London: Fisher Unwin. Pp. 425.

CLAPHAM (J. H.). The Economic Development of France and Germany, 1815-1914. Second Edition. Cambridge: University Press. 1923. Pp. 420.

[The second edition does not differ much from the first. Some footnotes have been added; the author explaining in an interesting preface why there are not more notes and why he has not compiled a bibliography. Reviewed in the ECONOMIC JOURNAL, Vol. xxxi.]

CLARK (G. N.). The Dutch Alliance and the War against French Trade, 1688-1697. (Publications of the University of Manchester. Historical Series, No. XLII.) Manchester: University Press. 1923. Pp. 160.

CLARKE (JOHN J.). Some Factors relating to the Rehousing of Slum-dwellers. Liverpool: University Press. 1923. Pp. 68. 2*s.*

[After a review of rehousing before the War and after the War up to the present time, the writer prescribes for rehousing in the future. Observing that existing arrangements meet only a tenth of the requirements, he proposes a national scheme for making war on insanitary slums. The paper was read before Section F of the British Association at Liverpool.]

CREW (ALBERT). Economics for Commercial Students. Sixth Edition. London: Jordan. 1923. Pp. 422.

[This enlarged and revised edition, in which the author has had competent assistance, is adapted to the requirements of candidates for examinations.]

DAS (R. K.). Factory Legislation in India. With an Introduction by PROF. J. R. COMMONS. Berlin and Leipsic: Gruyter. 1923. Pp. 192.

[A useful account of factory legislation in India, beginning with Act XV of 1881 and ending with the Act passed in 1922 limiting the hours of adult labour to sixty a week.]

ENOCH (ARTHUR GUY). The Problem of Armaments. London: Macmillan. 1923. Pp. 199.

FOSTER (WILLIAM). The English Factories in India, 1661-1664. Oxford: Clarendon Press. 1923. Pp. 428.

[The eleventh of the series, whereof previous volumes have been reviewed in the ECONOMIC JOURNAL, 1911 and 1913.]

HIRST (F. W.). Trade, Expenditure, Taxation and Money. London: Longmans.

HOPKINSON (AUSTIN). The Hope of the Workers. London: Hopkinson. Pp. 104.

[Both Socialist and Capitalist may profit by the writer's logic and public spirit.]

HUNTER (PROF. M. H.) and WATKINS (PROF. G. S.). The Background of Economics. London: McGraw Hill Publishing Co. 1923. Pp. 514.

[A general survey of economic phenomena—the forces and products of nature, agriculture and industry and the problems which they present—designed as introduction to deeper studies. The authors are Professors in the University of Illinois.]

International Law, The British Year Book of. London: Frowde. 1923–4. Pp. 264.

[Of some economic interest is Prof. Charteris' description of the mandatory régime in the island of Naura, which had been criticised as involving monopolistic exploitation. Noticeable also is Mr. A. McNair's article on "The National Character and Status of Corporations," and that of Sir Cecil Hurst entitled, "Whose is the Bed of the Sea?"]

KEYNES (J. M.). A Tract on Monetary Reform. London: Macmillan. 1923. Pp. viii + 209. 7*s*. 6*d*.

KHAN (SHAFAAT AHMED). The East India Trade in the Seventeenth Century. Oxford: University Press. 1923. Pp. 325.

[The author is Professor of Modern Indian History, Allahabad.]

Labour and Capital, The Workers' Register of. Prepared by the Labour Research Department. Labour Publishing Co., Ltd. 1923. Pp. 223. 5*s*.

[A summary for the post-war years of the information on wages, employment, labour organisation, profits, capital reorganisations, etc., circulated to its subscribers currently by the Labour Research Department. The collection is made from the point of view of assisting Labour advocates to state the Labour case in industrial and political disputes; but this definite point of view does not detract from the value of the volume to the student of contemporary affairs as a convenient collection of facts, and increases its value to the student of Labour problems.]

MINTY (LEONARD LE MARCHANT). American Banking Methods. With an Introduction by SIR DRUMMOND FRAZER. London: King. 1923. Pp. 448.

[As pointed out in the Introduction, Mr. Minty has well exhibited the contrasts between American and English banking. Sir Drummond says: "The academic research work in economic history necessary for his degrees [B.Sc. (Edin.) and B.Com., London University] and his eleven years of practical banking guarantee the thoroughness of Mr. Minty's study of American banking methods." He has combined the grasp of essentials with the microscopic presentation of details. The book should serve not only as a textbook for students, but also as a book of reference for bankers.]

MORELAND (W. H.). From Akbar to Aurangzeb: a Study in Economic History. London: Macmillan. 1923. Pp. 364.

[By the author of *India at the Death of Akbar*, which was reviewed in the ECONOMIC JOURNAL, 1920.]

Netherlands Bank, 1922–23. Reports by the President and Commissaries to the General Meeting of Shareholders. Amsterdam: Blikman. 1923. Pp. 64.

OGATA (KIYOSHI). The Co-operative Movement in Japan. With Preface by SIDNEY WEBB. London: King. Pp. xv + 362. 12*s*. 6*d*.

PALGRAVE (R. H. INGLIS). Dictionary of Political Economy. Edited by HENRY HIGGS, C.B. Vol. II, F–M. London: Macmillan. 1923. Pp. 962.

[In this new edition additional articles and continuations of original articles have been judiciously relegated to an Appendix, which occupies some eighty pages. Several of the added articles refer to economists who have passed away

since the publication of the first edition in 1896; for instance, Goschen, Ingram, Martin, Munro, Paul and Pierre Leroy-Beaulieu, Anton and Karl Menger. A biographical element enters also into the excellent article on the German school of Political Economy by Prof. Walter Lotz, and the parallel history of the Italian school of Prof. Achille Loria. Among articles dealing with theory which have been continued by their respective writers may be mentioned that on Final Utility and that on Index-numbers. The last-named continuation illustrates a danger to which a review of recent literature is liable. Some important contemporary may seem to be left out. The addendum on Index-numbers must have left the writer's hands before the publication of Prof. Irving Fisher's *Making of Index-numbers.* No doubt, as the Editor anticipates, there will be needed additions in successive revisions of the Appendix. But, as he adds, what has been written does not become obsolete. Very appropriate is his motto, "Omnia mutantur: nihil interit."]

PENTY (ARTHUR J.). Towards a Christian Sociology. London: Allen and Unwin. 6*s.*

PIGOU (A. C.). Essays in Applied Economics. London: King. Pp. 198.

RAWLINSON (ALBERT). The True Principle of Money and its Application in Stabilising the Currencies. London: King. Pp. 16.

SHAH (K. T.). Trade Tariffs and Transport in India. (Bombay National Book Depot.) London: King. 1923. Pp. 450.

[Less historical than the author's *Sixty Years of Indian Finance*, reviewed in the ECONOMIC JOURNAL, Vol. xxxii. Deals mainly with problems of the present day. Thus, in view of the special conditions of India, a scheme for Protectionist legislation is developed.]

SHEPHERD (E. COLSTON). The Fixing of Wages in Government Employment. London: Methuen. 1923. Pp. 207.

SNOWDEN (PHILIP). If Labour Rules. London: Labour Publishing Co. 1923. Pp. 60. 1*s.*

[Society as a whole must own undertakings. There need not be confiscation. The State would step into the position of control now exercised by the Directors. Public servants would be free from the harrowing anxiety which attends private enterprise. A capital levy would be justified for the purpose of Debt reduction; but it is a thing which could only be done once. A drastic limitation of inheritance would be popular. Labour stands for Free Trade, and is opposed to military alliances.]

STRACHEY (J. ST. LOE). Economics of the Hour. London: Hodder and Stoughton. Pp. xiv + 191. 7*s.* 6*d.*

SYKES (ERNEST). Banking and Currency. With an Introduction by F. E. STEELE. Fifth Edition. London: Butterworth. 1923. Pp. 324.

[The author—who is Secretary of the Institute of Bankers—has revised the book throughout in view of the changed conditions consequent on the War. It is pointed out in the Introduction that the book brings together information of which some is not to be found in any, and much could only be found by a search in many, books.]

TURNER (CHRISTOPHER) and GILBERT (BERNARD). Where are we Going? With a Preface by LORD BLEDISLOE. London: Palmer. 3*s.* 6*d.*

VENN (J. A.). Foundations of Agricultural Economics. Cambridge University Press. Pp. 317.

[The Preface describes the volume as an attempt to bring within reasonable compass some account of the numerous economic problems which affect the agricultural community. The author is Gilbey Lecturer in the History and Economics of Agriculture at Cambridge.]

WALTER (HUBERT C.). Modern Foreign Exchange. London: Methuen. 1923. Pp. 187.

WILLIAMS (GERTRUDE). Social Aspects of Industrial Problems. London: King. Pp. 260.

American.

BROWN (HARRY GUNNISON). Economic Science and the Common Welfare. Columbia (Missouri): Missouri Book Co. 1923. Pp. 273.

[The book includes articles published in the *Quarterly Journal of Economics* (1913) and the *Journal of Political Economy*, 1914, 1917. The author is Professor of Economics in the University of Missouri.]

DOUGLAS (PAUL H.). The Worker in Modern Economic Society. Chicago: University Press. 1923. Pp. xxxii + 929. $4.50.

[One of the Series "Materials for the Study of Business."]

FRENCH (CAROLL E.). The Shop Committee in the United States. Baltimore: Johns Hopkins Press. 1923. Pp. 109.

GODSHALL (W. L.). The International Aspect of the Shantung Question. Philadelphia: University of Pennsylvania. 1923. Pp. 172.

[A history of the encroachments on China committed by foreign Powers leads up to the action of the Japanese in Shantung and their designs on Kiao-Chow.]

HARDY (CHARLES O.). Risk and Risk-bearing. Chicago: University Press. 1923. Pp. 400.

[The author is Professor of Economics in the State University of Iowa.]

HASTINGS (HUDSON B.). Costs and Profits: their Relation to Business Cycles. (Pollak Foundation for Economic Research). Boston and New York: Houghton Mifflin. 1923. Pp. 168.

KELLEY (TRUMAN L.). Statistical Method. New York: Macmillan Co. 1923. Pp. 390.

[The book is designed to serve two needs: (1) that of biologists, economists and others who know little of the higher mathematics, and use statistical methods to illustrate truths otherwise investigated; and (2) those who employ mathematical statistics as an aid to the discovery of new truths.]

League of Nations Third Year Book. London: King. (New York: Brooklyn Daily Eagle). 1923. Pp. 434.

MACDONALD (AUSTIN F.). Federal Subsidies to the States: a Study in American Administration. Philadelphia. 1923.

[A doctorate thesis.]

MOULTON (H. G.) and McGUIRE (CONSTANTINE E.). Germany's Capacity to Pay: a Study of the Reparation Problem. 1923. Pp. 384.

[This careful estimate has been prepared under the auspices of the Institute of Economics established by the Carnegie Corporation of New York with the object of "ascertaining the facts about current economic problems . . . without regard to the special interests of any group."]

PEDDIE (D. E.). The Order of Nature in Economics. Boston (Mass.): Badger. Pp. 147. $1.50.

VINER (JACOB). Dumping: a Problem in International Trade. Chicago: University Press. Pp. xiii + 343.

French.

LAMBERT (EDOUARD) and BROWN (HALPED C.). La lutte judiciaire du capital et du travail organisés aux États-Unis. Paris: Giard. 1924. Pp. 469.

RALEA (M.). Révolution et Socialisme. (Publications du Centre de documentation Sociale.) Paris: Presses Universitaires. 1923. Pp. 80.

[" The idea of revolution contained in Socialist doctrines," the title of a well-known work by the author, is the main subject of the publication noted in this collection; which is a *selection*, not a bibliographical dictionary after the manner of M. J. Stammhammer.]

YOVANOVITCH (D.). Les stimulants modernes du Travail Ouvrier. (Publications du Centre de documentation Sociale.) Paris: Presses Universitaires. 1923. Pp. 378.

Italian.

ALESSIO (GIULIO). Ulteriori Studii della Teoria del reddito Nazionale. Rome: Academia dei Lincei. 1923. Pp. 86.

[A memoir presented to the Academie dei Lincei. Irving Fisher's theory of income is criticised and a new theory of equilibrium between social capital and interest is proposed.]

FOLCO (S.). Il maggiore experimento communista e il fallimento di un sistema. Rome: Ferraris.

GRAZIADEI (A.). Prezzo e sovraprezzo nelle economia Capitalistica. Milan: Avanti.

GRAZIANI (A.). Capitale e interesse. Naples: Sangiovanni.

NOCEFORO. Il metodo Statistico. Messina: Principalo.

PANTALEONI (M.) and BROGLIO (R.). Temi, Tesi, Problemi e Quesiti di Economia Politica, Teorica e Applicata. Bari: Laterza. 1923. Pp. xxiii + 351.

[A handbook of examination and essay questions (without answers) covering a wide range and intended to assist teachers and students. Examiners in search of new conundrums will find it useful.]

PAPI (GIUSEPPE U.). Prestiti esteri e commercio internazionale in regimé di carta moneta. Rome: Signorelli. Pp. 150.

STEPHANI (ALBERTO DE). Decadenza demografica e decadenza economica. Rome: " La Voce." 1921. Pp. 111.

German.

ASBECK (MARGARETE). Die Sensenindustrie an der Enneperstrasse. Pp. 75.

[Emanating from a Professorial *Seminar* in the University of Hamburg, this is a study of the scythe industry in a district where it has flourished for centuries.]

ELSTER (DR. ALEXANDER). Sozialbiologie Bevölkerungswissenschaft und Gesellschaftshygiene. Berlin and Leipsic: Gruyter. 1923. Pp. 483.

HOFMANN (VICTOR). Die devaluierung des österreichischen Papiergelder im Jahre 1811. Munich and Leipsic. 1923. Pp. 231.

LEIBIG (DR. KARL). Die deutsche Volkswirtschaft in Produktion und Verbrauch. Carnegie Institution for International Peace. 1922. Pp. 230.

[Pre-war statistics exhibit the growth of various German exports and imports; for which some causes are assigned. It is concluded that the increase of Germany's foreign trade was partly due to the raising of her tariff and consequent stimulus to production.]

MAUTNER (DR. WILHELM). Die Verschuldung Europas. Das problem der interalliierten Schulden und die Versuche zu seiner Lösung. Frankfort: Societäts-Druckerei. 1923. Pp. 215.

MISES (LUDGWIG) and KLEIN (FRANZ). Die geldtheoretische und geldrechtliche Seite des Stabilisierungsproblems. Munich and Leipsic: Duncker and Humblot. 1923. Pp. 75.

SALIN (DR. EDGAR). Geschichte der Volkswirtschaftslehre. (Encyklopädie der Rechts und Staatswissenschaft.) Berlin: Springer. 1923. Pp. 42.

SCHULTZE (ERNST). Die Zerrüttung der Weltwirtschaft. (The Economic Disintegration of the World.) Second Enlarged Edition. With statistics and 12 diagrams. Stuttgart: W. Kohlhammer. 1923. Pp. 782 in gr. 8°).

[In this large book Prof. Schultze of Leipsic University and Commercial High School in Leipsic examines the consequences of the existing disorganisation of the world's economy. In his opinion the period of the political and economic predominance of Europe came to an end with the Great War.]

SCHUMACHER (PROF. DR.). Das Problem der internationalen Kriegsverschuldung. Hannover: Hochschulgemeinschaft. 1923. Pp. 15.

[A lecture delivered June 16, 1923.]

WAUER (DR. WALLER). Die Wirtschaftlichen Selbstverwaltungskörper. Ihr Begriff und ihre Organisation. Leipsic: Erlangen. 1923. Pp. 100.

WAGEMANN (DR. ERNST). Allgemeine Geldtheorie. Band I. Theorie des Geldwerts und der Wahrung. Berlin: Engelmann. 1923. Pp. 367.

TSCHAJANOW (A.). Die Lehre der bauerlichen Wirtschaft: Versuch einer Theorie der Familienwirtschaft im Landbau. Berlin: Parey. 1923. Pp. 132.

WILMERSDÖRFFER (DR. ERNST). Pläne und Versuche zu Wahrungssanierung. Munich and Leipsic: Duncker and Humblot. 1923. Pp. 165.

[Dr. Wilmersdörffer is the first of five contributors who treat respectively of the monetary policy of Italy, the Straits Settlements, Austria, Greece, and, as applicable to Central Europe, the plan of the "double note." The book forms the second part of the 165th volume of the writings of the Vereins für Sozialpolitik.]

INDEX TO THE ECONOMIC JOURNAL

VOLUME XXXIII

ARTICLES :—

REVIEWS :—

REVIEWS (*continued*) :—

REVIEWS (*continued*) :—

REVIEWS (*continued*) :—

NOTES AND MEMORANDA :—

OBITUARY :—

REVIEWERS :—